JANUARY, 1954 • 20c

Better Farming Methods

For County Agents, Vo-Ag Teachers, Soil Conservationists, and Extension Specialists

On The Cover

County Agent John L. Sears, (right) Graham county Arizona, arranged this fly spraying demonstration for farmers at his county fair.

5th Annual Agricultural Chemicals Issue

Insecticides Help Control Soil Insects . . . page 10

Custom Spraying Pays . . . page 16

Handle Insecticides With Care . . . page 20

Weeds & Insects Take A Beating . . . page 30

Business Magazine for Leaders who TRAIN and ADVISE Farmers

PENDISTRIN®

-the most widely-accepted treatment for

MASTITIS

YOU CAN RECOMMEND PENDISTRIN WITH CONFIDENCE

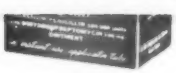
WA

PAG

Proved on millions of cows, there are important reasc
why Pendistrin is so highly effective in treating mastit

1. **Attacks wide range of bacteria**—Each tu
contains 100,000 units of penicillin *plus* 100 mg.
dihydrostreptomycin—effective against virtually
kinds of bacterial mastitis.
2. **Melts quickly**—The *special* ointment base
Pendistrin melts at body temperature—goes
work fast.
3. **Penetrates thoroughly**—The *special* ointme
disperses throughout the treated quarter.
4. **Gives prolonged action**—Ointment stays on t
job up to 48 hours . . . slowly releases two powe
ful antibiotics for continual attack on bacter
organisms in treated quarter.
5. **Treats wounds, injuries**—May be used local
for superficial skin infections and wounds, to help
prevent mastitis.

is available in drug stores.



free folders —SEND FOR YOURS!

Get these helpful, authoritative free folders, and handy dairy breeding record—for your desk or library, or to pass on to interested farmers:

- **Effective Control of Mastitis**
- **Dairy Herd Breeding Records**
- ***New Formula* Vionate, a Complete Vitamin and Mineral Supplement**

Write today: E. R. Squibb & Sons, *Division of Mathieson Chemical Corporation*, Dept. BFM-1, 745 Fifth Avenue, New York 22, New York.

For accurate diagnosis of mastitis, consult your veterinarian.

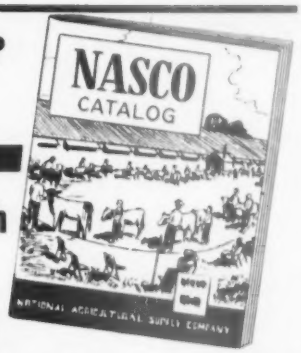
PENDISTRIN IS A TRADEMARK.

SQUIBB—A NAME YOU CAN TRUST

For more information from advertisers circle page numbers on ad index, page 56

HAVE YOU A COPY OF CATALOG No. 24?

If you haven't your own copy of Nasco's big 240 page **FREE** Catalog, we have one for you. You'll find it a big help in ordering many hard-to-get items . . . a real, one-stop shopping service for all Vo-Ag Leaders.



FOR *Greater Profits*

TEST YOUR SOIL THE ACCURATE WAY

'S

re—
non-

EX

t,
s
o
t
s,
t.

VY

GES

e
s
e
d

Potassium. $25.50 F.O.B. Fort Atkinson, Wisconsin.

Soiltex A TEST FOR SOIL ACIDITY

F 115-E-4

Soiltex is used to determine: when the soil needs lime, when the soil contains sufficient lime, the best crop adaptation of soils and the effects of fertilizing and watering on acidity. The kit contains complete equipment and instructions for making approximately 100 determinations for soil acidity. $1.50 each postpaid. Solutions replacements available on all Simplex Soil Test Outfits.

National Agricultural Supply Company

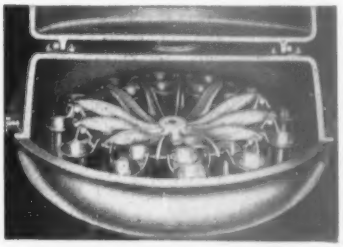
FORT ATKINSON, WISCONSIN

Watch for NEW NASCO BOOK CATALOG!

Ready Jan. 15th

It's bigger and better than ever! More than 770 book titles . . . the largest Ag book library in the world. With this handy catalog in your files, you'll be able to select the books you want in any category—from Bee Culture to Vocational Planning. Ordering from a Nasco Catalog is so easy—and economical, too. Saves contacting a variety of publishers, being bothered with multiple invoices. Nasco is your single source for all your book needs . . . order from Nasco.

Important! **Most of you are already on our mailing list to receive the new 1954 Book Catalog as soon as it is off the press. If you don't receive a copy by Jan. 20th, drop us a line. We'll be glad to send you one, without any obligation.**



FAST DELIVERY ON JALCO TESTERS

Jalco testers are precision made and come in self contained units guaranteed for accuracy and durability. The motor located in the bottom of the bowl is fully protected against acid or moisture.

Jalco testers are noted for their reliability and years of trouble-free service.

B47-40A Jalco Baby Electric, 12 bottle size $42.00
X-10-12 Jalco Baby Hand Model, 12 bottles $30.00
B45-48 Jalco Electric, 48 bottle size with brake and electric heater $72.00

If your school needs a new tester, order a Jalco today from this ad or from the new Nasco catalog.

HANSON VIKING SCALES

Handy for farm use. Heavy duty. Weigh 200 lbs. Accurate. Adjustable pointer can be set at zero to balance bag or pails. Order E2, $5.85 postpaid.

PENDISTRIN®

-the most widely-accepted treatment for

MASTITIS

YOU CAN RECOMMEND PENDISTRIN WITH CONFIDENCE

The *special* ointment base of Pendistrin thoroughly penetrates the treated quarter . . . then slowly releases two powerful antibiotics.

Proved on millions of cows, there are important reasons why Pendistrin is so highly effective in treating mastitis:

1. **Attacks wide range of bacteria**—Each tube contains 100,000 units of penicillin *plus* 100 mg. of dihydrostreptomycin—effective against virtually all kinds of bacterial mastitis.
2. **Melts quickly**—The *special* ointment base of Pendistrin melts at body temperature—goes to work fast.
3. **Penetrates thoroughly**—The *special* ointment disperses throughout the treated quarter.
4. **Gives prolonged action**—Ointment stays on the job up to 48 hours . . . slowly releases two powerful antibiotics for continual attack on bacterial organisms in treated quarter.
5. **Treats wounds, injuries**—May be used locally for superficial skin infections and wounds, to help prevent mastitis.
6. **Handy for instant use**—Convenient "barn box" makes it easy to keep a supply on hand—ready for instant use.

These are important reasons, too, why you can confidently recommend Pendistrin to your farmers, dairymen, 4-H and FFA members. Tell them to get Pendistrin from their druggist.

URGE DAIRYMEN TO TREAT MASTITIS PROMPTLY

Caution your dairymen to watch for mastitis . . . advise them to treat promptly with Pendistrin *at the first sign*. Suggest keeping a convenient "barn box" of 12 tubes of Pendistrin on hand—for instant use. No refrigeration required. Pendistrin is available in drug stores.

free folders —SEND FOR YOURS!

Get these helpful, authoritative free folders, and handy dairy breeding record—for your desk or library, or to pass on to interested farmers:

- **Effective Control of Mastitis**
- **Dairy Herd Breeding Records**
- ***New Formula* Vionate, a Complete Vitamin and Mineral Supplement**

Write today: E. R. Squibb & Sons, *Division of Mathieson Chemical Corporation*, Dept. BFM-1, 745 Fifth Avenue, New York 22, New York.

For accurate diagnosis of mastitis, consult your veterinarian.

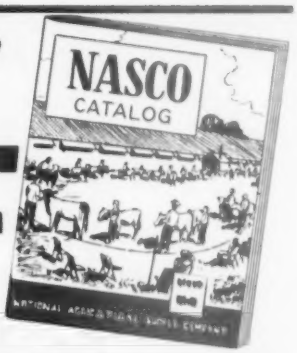
PENDISTRIN IS A TRADEMARK.

SQUIBB—A NAME YOU CAN TRUST

For more information from advertisers circle page numbers on ad index, page 56

HAVE YOU A COPY OF CATALOG No. 24?

If you haven't your own copy of Nasco's big 240 page **FREE** Catalog, we have one for you. You'll find it a big help in ordering many hard-to-get items . . . a real, one-stop shopping service for all Vo-Ag Leaders.



FOR *Greater Profits*

TEST YOUR SOIL THE ACCURATE WAY

Simplex SOIL TEST OUTFITS

Based on the Spurway Method give you more—much more—for less. Designed for use of non-chemists; easy, quick, inexpensive.

F 112-E-1

THE *Complete* SIMPLEX

Practical for use in any locality, requires no waiting, allows for frequent, yearly tests. Contains all the solutions and apparatus necessary for 100 to 300 soil tests for each of 15 important soil chemicals, including trace elements, plus tissue tests for Nitrates, Phosphorus and Potassium. $49.50 F.O.B. Fort Atkinson, Wisconsin.

F 113-E-2

THE *Junior* SIMPLEX

This soil test outfit contains all the materials and solutions necessary to make 100 to 300 tests for each of 6 soil chemicals plus tissue tests for Nitrogen, Phosphorus and Potassium. $33.50 F.O.B. Fort Atkinson, Wisconsin.

F 114-E-3

THE *Farm* SIMPLEX

This soil test outfit is designed for the smaller grower. It contains 100 tests for each of 5 soil elements plus tissue tests for Nitrogen, Phosphorus and Potassium. $25.50 F.O.B. Fort Atkinson, Wisconsin.

Soiltex A TEST FOR SOIL ACIDITY

F 115-E-4

Soiltex is used to determine: when the soil needs lime, when the soil contains sufficient lime, the best crop adaptation of soils and the effects of fertilizing and watering on acidity. The kit contains complete equipment and instructions for making approximately 100 determinations for soil acidity. $1.50 each postpaid. Solutions replacements available on all Simplex Soil Test Outfits.

National Agricultural Supply Company

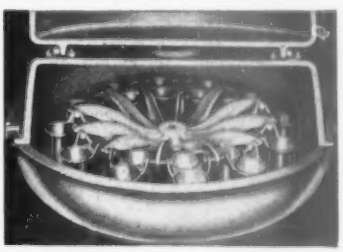
FORT ATKINSON, WISCONSIN

Watch for NEW NASCO BOOK CATALOG!

Ready Jan. 15th

It's bigger and better than ever! More than 770 book titles . . . the largest Ag book library in the world. With this handy catalog in your files, you'll be able to select the books you want in any category—from Bee Culture to Vocational Planning. Ordering from a Nasco Catalog is so easy—and economical, too. Saves contacting a variety of publishers, being bothered with multiple invoices. Nasco is your single source for all your book needs . . . order from Nasco.

Important! **Most of you are already on our mailing list to receive the new 1954 Book Catalog as soon as it is off the press. If you don't receive a copy by Jan. 20th, drop us a line. We'll be glad to send you one, without any obligation.**



FAST DELIVERY ON JALCO TESTERS

Jalco testers are precision made and come in self contained units guaranteed for accuracy and durability. The motor located in the bottom of the bowl is fully protected against acid or moisture.

Jalco testers are noted for their reliability and years of trouble-free service.

B47-40A Jalco Baby Electric, 12 bottle size $42.00
X-10-12 Jalco Baby Hand Model, 12 bottles $30.00
B45-48 Jalco Electric, 48-bottle size with brake and electric heater $72.00

If your school needs a new tester, order a Jalco today from this ad or from the new Nasco catalog.

HANSON VIKING SCALES

Handy for farm use. Heavy duty. Weigh 200 lbs. Accurate. Adjustable pointer can be set at zero to balance bag or pails. Order B2, $5.85 postpaid.

Better FARMING METHODS

Business Magazine for Leaders Who TRAIN and ADVISE Farmers

Published exclusively for
COUNTY AGENTS, VO-AG TEACHERS, EXTENSION SPECIALISTS, SOIL CONSERVATIONISTS, AND AGRICULTURAL LEADERS

Trade Mark 435,585 Reg. U.S. Pat. Off.
Established 1928—Subscription $2.00 per year
Member Controlled Circulation Audit

WATT PUBLISHING CO., MOUNT MORRIS, ILL.

Vol. 26 January, 1954 No. 1

Publication Staff

J. W. Watt ..... Chairman of the Board
Leslie A. Watt ..... President and Publisher
O. A. Hanke ..... Vice Pres. and Ass't. Publisher
J. H. Flores ..... Editorial Director
Herbert L. Schaller ..... Editor
Max M. Buell ..... Assistant Advertising Director
C. M. Hall ..... Advertising Sales Manager
Jack R. Shore ..... Advertising Manager
Orvel H. Cockrel ..... Research Manager
Martin DeKoning ..... Circulation Director
Mark Crawford ..... Production Manager

BRANCH OFFICES

Hugh Thompson ..... Eastern Advertising Manager
Watt Publishing Company, 347 Madison Avenue, New York 17, N.Y. Phone Murray Hill 3-1492.

H. K. Marcott ..... Western Advertising Manager
Watt Publishing Co., P. O. Box 521, Palo Alto, Calif., Phone Davenport 3-5889.

ADVERTISING REPRESENTATIVES

Peck and Billingsley, 185 N. Wabash Avenue, Chicago 1, Ill. Phone Dearborn 2-0292.

McDonald-Thompson Co.:
San Francisco, Cal., 625 Market St., Phone YUkon 6-0647.
Los Angeles, Cal., 3727 W. 6th St., Phone DUnkirk 7-5391.
Seattle, Wash., 1008 Western Ave., Phone ELliott 3767.
Denver, Colo., 222 Colorado National Bank Bldg.

ECA NBP

Published monthly on the 1st of the month by Watt Publishing Co., Mount Morris, Ill. COMPANION PUBLICATIONS owned and published by the Watt Publishing Co.: Poultry Tribune, Hatchery and Feed, Turkey World, Pacific Poultryman, Broiler Growing, Poultry Processing and Marketing.

All rights reserved. Reproduction of any editorial matter is forbidden, except by special request.

Acceptance under Section 34:64 P.L.&R., Authorized.

Subscription prices: United States and possessions, $2.00 per year; Canada and Foreign, $3.00 per year. Single copies, January, March and November issues, 50 cents each; all other issues 20 cents each. All subscriptions start with current issue. Make all remittances payable to BETTER FARMING METHODS. If you change your address, notify us direct and give both your old and new address when sending notification of change. Always state whether your subscription is new or renewal; please renew by the same name and initials. Printed in U.S.A.

Business Magazine for Leaders Who Train and Advise Farmers

In This Issue

(Cover picture by Joe McClelland, University of Arizona)

Washington News ..... *Fred Bailey* 6
Insecticides Help Control Soil Insects ..... *J. H. Lilly* 10
Custom Spraying Pays ..... *Charles M. Kuenzi* 16
1953 NACCA Convention 18
Handle Insecticides With Care ..... *Harold Heldreth* 20
Sell A Program, Show A Profit ..... *Burton Seeker* 24
Holstein Cow Judging Pictorial 28
Weeds and Insects Take A Beating ..... *Milton Kohrs* 30
Fertilizer Outlook for 1954 ..... *Paul T. Truitt* 34
County Farm Tour ..... *Harold Severson* 38
Vo-Ag Classroom Cabinets ..... *Joe Duck* 40
FFA Boys Take a Trip ..... *Harold Donovan* 44
NVATA Photo Report 47
County Agent News ..... *Jay Partridge* 50
Teacher's Farm Shop ..... *T. J. Wakeman* 52
The Challenge of Our Time ..... *Joe T. Brown* 54
Helpful Booklets 55
Duroc Judging Pictorial 57
For What It's Worth ..... *Herbert L. Schaller* 58

The ad index will be found on page 56

Just Between Us

DECEMBER WAS CONVENTION MONTH and I lived at the Conrad Hilton Hotel in Chicago for almost two weeks.

The National Vocational Agricultural Teachers' Association, National Association of County Club Agents, and the 4-H Club Congress were all held during December.

To me, the highlights of any convention are the numerous opportunities to make new friends and renew old friendships. Most convention programs tend to become tiresome and too long.

CONVENTION BANQUETS are the hardest on a person's time, energy, patience, and endurance.

To steal a line from Jimmy Durante, "Everybody wants to get in the act." Most banquet programs are too long. Too many people have a finger in the program. Too much time is taken up with incidentals.

I think it's almost impossible to seat people at crowded banquet tables and keep them there for two and one-half to four hours. Certainly what they might absorb and the good they might derive from a banquet program is all but lost in the almost superhuman attempt by most people just to sit still and be quiet.

It is always amazing to me that agricultural leaders who conduct many meetings for farm people usually have some of the longest banquet programs on record. I wonder if they do the same thing to their farm people?

If so, I wonder what percentage of attendance they attain.

IN FEBRUARY there will be several feature articles devoted to grassland farming.

Some of the features that have been set aside for our February issue include *"How I Set Up a County Demonstration Farm,"* a story dealing with a demonstration farm set up by a county agent in Iowa.

There is another story especially for ag leaders on *"How to Set Up a Grassland Demonstration Plot."*

Two additional articles on *"How To Choose the Grass That Fits the Farm"* and *"Use the Land That Fits the Grass"* should also prove of interest and benefit to all ag workers.

Following the February issue is our March husbandry issue, where you will find the latest information concerning dairy, beef cattle, swine, poultry, crops, and soils, written by some of the outstanding scientists in the field of agriculture.

When the job calls for the finest in roofing...

Johns-Manville
ASBESTOS SHINGLES

The J-M American Colonial Shingle gives you a permanent type of roof, economically priced, that will add character and distinction to any home!

THESE Johns-Manville Asbestos Shingles have the same rich graining as weathered wood shingles, cast the same interesting shadow line. You have a choice of beautiful colors and blends.

Made of asbestos and cement they are as permanent as stone. They give lasting protection against fire, and weather.

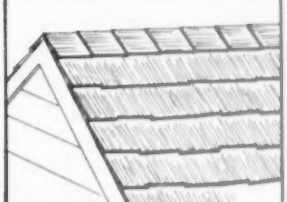
In most areas the applied cost of an American Colonial roof is lower than any other *permanent type* roof the homeowner can buy.

For full details and a free brochure showing the full color range of American Colonial Shingles write Johns-Manville, Box 60, New York 16, New York.

EASY TO APPLY

Each shingle is designed as a rigid asbestos-cement strip—covers as much area as ordinary strip shingles

The shingles are self-aligning on the roof. This saves time—speeds application. Large size means fewer pieces to handle. Only 4 nails to each unit. Nail holes are pre-punched



The finished roof has the pleasing horizontal shadow lines and deep-grained texture desired by so many homeowners. Matching shingles furnished for hips and ridges

JOHNS MANVILLE JM PRODUCTS **Johns-Manville**

WASHINGTON NEWS

By Fred Bailey
and Jay Richter
Agricultural Services
(Exclusive to Better Farming Methods)

Farm Plan Takes Form

USDA's farm plan was getting its final touches as this issue went to press.

Besides asking Congress for sliding-scale supports for feed grains, officials were planning:

(1) To ask at least a trial run for two-price systems in the case of big export crops—wheat, and perhaps cotton and rice. The part of a crop consumed at home would be supported at or near full parity. For what was sold abroad growers would take a lower support, or perhaps get none at all.

(2) For perishable commodities USDA plan is to ask for little that is new . . . to depend mainly on present programs. Under present law the Secretary can support meat animals, poultry, and eggs—if he wants to—up to 90 percent of parity. He can also, as now in the case of beef, purchase perishables to keep markets up.

Groups Struggle for Power

What has not been apparent, but is probably most important in the to-do over conservation is this: The fight is a struggle for power that goes far beyond the soil and water issue.

It starts with the growth in recent years of local soil conservation districts. They now number some two and one half thousand. Their natural ally has been the SCS which has encouraged their organization, and provided technical aids financed by federal funds.

That is one part of the picture.

The other is composed of another alliance, also partly federal and partly non-government. These allies are the colleges, Extension Service, and Farm Bureau. Many of the farmers and others involved are hardly conscious of being allies. Many, for that matter, may be members of conservation districts.

The fact remains that some district leaders think the Bureau, colleges, and extension are out to curb their growth. This is denied by leaders of the latter groups. Some of them countercharge that the districts are themselves gunning for virtual control over the whole of U. S. agriculture — by including everything but the kitchen sink under the heading of "conservation."

College Leaders Displeased

Here is an ironic twist and little known fact about USDA reorganization: Land Grant college leaders—whom Benson was supposed to have favored in his reshuffle—are not happy about the Secretary's changes in SCS.

You won't hear them talking about it in public—but the college leaders think Benson should have done what he got so much heat for supposedly trying to do. That is, get more soil and water work done by the colleges.

Ezra T. Benson

Land Grant feeling is that there is a great pool of technical talent in the colleges, largely going to waste as far as USDA conservation work is concerned. Many colleges probably would be happy to contract with USDA to work on soil and water problems.

Meanwhile, however, Benson has said that he and his aides "do *not* now and never have planned" either to (1) contract with Land Grant colleges for technical help for local conservation districts, or (2) to give extension any SCS functions.

Colleges Receive Challenge

Whatever the final upshot of the conservation fight, Secretary Benson still wants more say-so for extension and colleges.

His speech before the annual meeting of the colleges, perhaps his most important to date, was significant. Key lines were those in which he urged extension and colleges to instruct farmers on "public policy."

"Extension can present factual information, and the economic consequences of various courses of action can be explained," he declared.

"There is no greater need today in agriculture than a courageous, objective presentation of the economics of farm policy. The challenge is yours—the obligation also . . ."

New Parity Formula in 1955

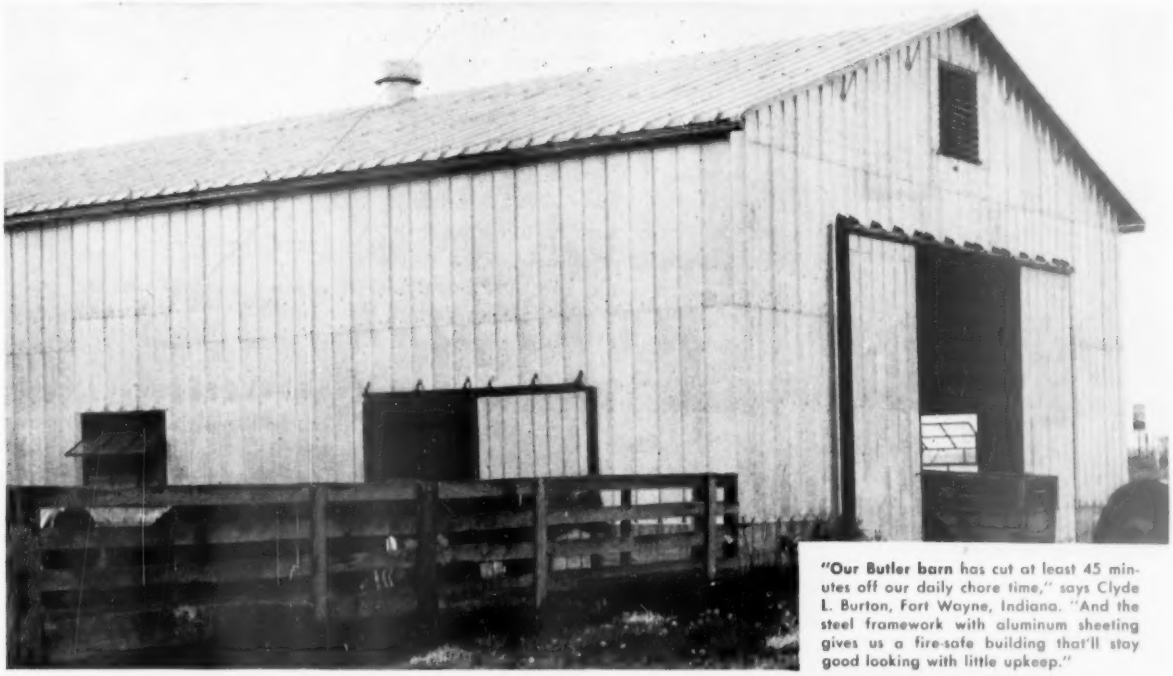
The new or "modernized" parity formula will go into effect in 1955 for wheat, cotton, corn, and peanuts—unless Congress decides otherwise.

The new method would lower dollar-and-cents price guarantees.

Percentage drops would be about 15 percent for wheat; 12 percent for corn; a whopping 20 percent and more for peanuts; and only 1½ percent for cotton.

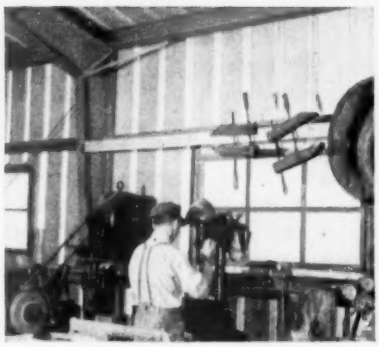
Washington looks for Congress to extend the present method of figuring parity for the 4 "basic" crops concerned. Even if they were shift-

Here's how **BUTLER** buildings increase farm efficiency



"Our Butler barn has cut at least 45 minutes off our daily chore time," says Clyde L. Burton, Fort Wayne, Indiana. "And the steel framework with aluminum sheeting gives us a fire-safe building that'll stay good looking with little upkeep."

"We save 2 hours a day with our modern Butler loafing barn and milking parlor," says Carl Hanshew, Sharpsville, Indiana. "It's easy to partition Butler's clear-span interior for different season-to-season needs, too."



"We do most of our own repair work, now that our shop is in this Butler building," says Brother Nilus, C.S.C., Notre Dame Farm, Notre Dame, Ind. "The wide doors let us drive in with big implements, make quick repairs and get back to the field!"

"My new Butler addition to my old barn gives me floor-to-roof storage space that lets me get all of my hay and bedding under cover," says William A. Meyer, Campbellsport, Wis., "and Butler's bolted construction simplifies later expansion."

Butler steel farm buildings—just as modern farm machinery—are helping farmers improve their efficiency . . . making their work easier, more productive, for new profits. For more facts on Butler farm buildings see your local Butler dealer. He'll tell you where you can see Butler buildings at work in your own community. For his name and free building folders by mail, send coupon.

BUTLER STEEL PRODUCTS

BUTLER MANUFACTURING COMPANY

Manufacturers of Oil Equipment • Steel Buildings
Farm Equipment • Cleaners Equipment • Special Products

Factories located at Kansas City, Mo. • Galesburg, Ill.
Richmond, Calif. • Birmingham, Ala. • Minneapolis, Minn.

For prompt reply, address office nearest you:

BUTLER MANUFACTURING COMPANY

7331 East 13th Street, Kansas City 26, Missouri
931A Sixth Ave., S.E., Minneapolis 14, Minnesota
1031 Avenue W, Ensley, Birmingham 8, Alabama
Dept. 31A, Richmond, California

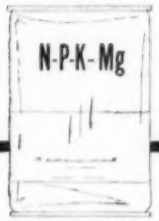
Please send me the name of the Butler dealer in my community. Also free folders on Butler buildings.

Name .....

Address ..... County .....

P. O. ..... State .....

SOLUBLE MAGNESIUM
the **FOURTH ELEMENT**
in the Fertilizer Bag



Sul-Po-Mag®
Water-Soluble Double Sulfate of Potash-Magnesia
$K_2SO_4 \cdot 2MgSO_4$

Soluble magnesium—a basic ingredient in mixed fertilizers in many crop growing areas—is commonly spoken of as the *fourth plant food element* in the fertilizer bag.

The practical and economical way for the farmer to get magnesium in soluble form is with a fertilizer containing *Sul-Po-Mag*, a properly balanced combination of *sulfate of magnesium* and *sulfate of potash*. Both are water-soluble and immediately available to soil organisms and growing plants.

Fertilizer manufacturers from coast to coast are including soluble magnesium as the fourth element in their quality grades. Wherever there are evidences of magnesium deficiencies in the soil, farmers are finding it profitable to use soluble magnesium on a wide variety of crops.

It pays the farmer to look for a quality fertilizer containing *Sul-Po-Mag*—to look for it *in* the bag and *on* the bag.

WRITE FOR FREE BOOKLET

Increase Crop Quality and Yields.

International Minerals & Chemical Corporation

potash division

INTERNATIONAL MINERALS & CHEMICAL CORPORATION

General Offices: 20 North Wacker Drive, Chicago 6

. . . 10 percent of farms produce 50 percent of sales.

ed to new parity, the full reduction would not come at once. The law provides for a "transitional parity" period. This would prevent dollar-and-cents support from dropping more than 5 percent in a single year.

Note: Washington actions in the next few weeks and months won't have much impact on farm operations in the New Year. Reason is that most changes being sought in Congress would not take effect until 1955. Until then the Agricultural Act of 1949, including present price supports, are to remain in force.

Census Reveals Farm Facts

Latest Census Bureau studies reveal some interesting facts about the farm, and income thereon.

Highlights include:

(1) The top 2 percent, or "Class I" farms, account for 25 percent of farm sales. A Class I farm is one with gross sales of $25,000 or more each year.

(2) Fifty percent of total farm sales are made by Class I and Class II farms—which, together, are only 10 percent of the nation's total farms.

(3) The census shows there are only 3.7 million full-time farms in the U. S. Part-time or residential farms number 1.6 million, and account for 2½ percent of total farm sales.—*End.*

★

Insulation

Two educational booklets are available to agricultural leaders on the proper use of insulation in farm buildings.

One booklet deals with farm building insulation and the other pamphlet on what the farmer should know about insulating board.

Each of them contains practical instructions for the use of insulating board in the farm building.

Copies of these booklets can be obtained by writing to the Insulation Board Institute, 111 West Washington St., Chicago 2, Ill.

"Here comes that cold-nose pig—you'd better sit down!"

★

Exhibit Vo-Ag Shop Projects

Vocational agriculture was emphasized in the FFA farm mechanics display at the Cuming County Fair held at West Point, Nebr.

This display was under the supervision of Dean Lancaster and Robert Beck, vo-ag instructors in Cuming county.

Over 90 individual items were displayed in addition to a certified seed exhibit, set up by FFA members of the two chapters. With the vo-ag "tree" providing the centerpiece, the farm mechanics projects completed during the past year were entered in the competition and judged according to workmanship shown. Smaller displays of welding, forge, and rope-work adorned the walls of the exhibit space.

Here is shown part of the articles that were displayed at the West Point, Nebr., FFA farm mechanics show.

Most of the exhibits had been in use during the past year. Where necessary, they were brought in to the shop, cleaned, and painted, before being entered in the show.

According to the instructor, a sturdy picnic table on display that could be taken apart and stored in a small area caused much favorable comment.

For more information from advertisers circle page numbers on ad index, page 56

HERE'S HELP

FOR TRAINING STUDENTS • CLUBS • FARM GROUPS

CASE

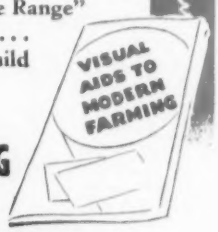
EDUCATIONAL MOVIES

16MM.—IN COLOR AND SOUND

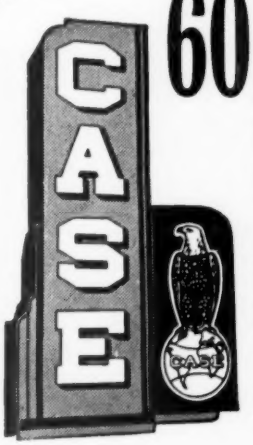
SLIDE FILMS • POSTERS • BOOKLETS • STUDY GUIDE

ALL AT NO CHARGE

TITLES of movies include: "Betty's Fruit Grove," a little girl's story-book vision of fruit growing and harvesting in United States and Canada . . . "One Equals Four," modern management methods for permanent pastures . . . "You Be the Judge," factors in selecting a farm tractor . . . "Storage Curing of Baled Hay," the production of quality roughage . . . "Harvesting Seeds of Plenty," seed production as part of grassland farming . . . "High Yield Harvesting," shows how the nation's great variety of crops are harvested by combines . . . and many others of descriptive title such as "Modern Farm Machines Bring Back the Range" . . . "Strips and Curves" . . . "Water Spreading" . . . "More Food From Fewer Acres" . . . "Soil and Life" . . . "Win Against Water" . . . "Broad Base Terracing" . . . "Build Good Terraces" . . . "Level Farming" . . . "Building a Pond" . . . "Hydraulic Controls."



Mark Twain once said . . . "Training is everything." The J. I. Case Co., believing that the future is a world limited only by ourselves, offers to utilize its contributions to education and the training of others by making available full and free use of its educational materials . . . 35 mm. sound slide films, study guides, booklets and wall charts as well as sound movies. All films are loaned. Printed materials are furnished upon request and without obligation to instructors, club leaders, county agents, and other persons, groups and organizations. Let these materials help you to help others to information . . . the practical application of research in conservation and agricultural production for abundant, prosperous living. These aids provide visual, factual support for classroom teaching as well as programs for clubs and other organizations. Read at right how to order.



60 TEACHING AIDS... NOW OFFERED

BE SURE YOU HAVE THE NEW VISUAL AIDS CATALOG

As its contribution to a prosperous, enduring agriculture, the Case Company has prepared some sixty educational items. The new Visual Aids catalog describes each and tells how to order. Get your copy, and schedule your choice of movies, etc. through your nearest Case dealer or Branch House. J. I. Case Co., Racine, Wis.

Recent experiments are showing that . .

Insecticides Help Control Soil Insects

By J. H. Lilly

Department of Zoology and Entomology
Iowa State College

Using insecticides in the soil to control certain insects is something very new. Ag leaders will find this review of work that has been done on this practice to date of interest and help to them in keeping abreast of new agricultural developments. This practice shows great promise and may be important in controlling many insects that attack plants in the soil.

J. H. Lilly inspects a rootworm-damaged plant in an untreated control plot. (Shell Chemical Company photo.)

● AGRICULTURAL SOILS provide all the comforts of home for a wide variety of insect pests. Both food and shelter are found there for those insects adapted to take advantage of them.

A soil habitat also provides refuge from many natural enemies, and buffers critical changes in wind, moisture, etc., which might otherwise be destructive.

Our general attitude toward soil insects in the past has pretty much been: "Out of sight, out of mind." It's very easy to overlook the damage done by underground pests—especially when the damage is light or moderate. And our control recommendations for checking underground pests haven't been too satisfactory until quite recently.

Soil insect control work is so new and the problems are so varied that we can't yet answer all of the important questions. We can, however, make a few recommendations and suggestions that can stop or reduce yield losses when soil insects are troublesome.

Test Rootworm Control

In Iowa we have concerned ourselves with the corn rootworm because of its increasing importance in these days of intensive corn production on high-priced land. During the past three years, we've run many tests on rootworm control.

Some of these were on small experimental plots, but many were on a practical field scale and applied with farmer-owned equipment. Also, quite a number of seedsmen and farmers ran tests of their own in 1952 and 1953. The results have been most encouraging.

Here's the picture as it now stands: Aldrin has been the most widely used insecticide. It has given consistently good to excellent results when properly used. Several other insecticides also have given good rootworm control when applied properly. These were heptachlor, dieldrin, gamma BHC, chlordane, endrin, and isodrin.

Three Methods of Use

The method of application is important, but you do have a choice. We've had good results with these methods:

1. Mixing the insecticide with commercial fertilizer and applying this mixture with a starter fertilizer attachment at the time of planting.

2. Spraying the insecticide mixture broadcast on the plowed ground just before it is disked up prior to planting, or on the old stalks just before plowing in the spring.

3. Using a planter-mounted power sprayer to apply the insecticide as a narrow band over the trench just behind the planter shoe (but not so as to wet the seed).

For the present, we recommend BHC for broadcast applications in spray form, but not for use in band treatments.

These insecticides are available in a variety of formulations. We are concerned with: (1) Emulsifiable concentrates, to be diluted in water and applied as sprays, either broadcast or banded along the rows. (2) Powdered dry or oily dust concentrates containing from 20 to 50 percent active insecticide for use in fertilizer mixtures. (3) Granular formulations, 30-60 mesh for example, for use in fertilizer mixes or direct applications.

Evidence to date indicates that the various formulations of a given insecticide are about equally effective, pound for pound, when applied to the soil, if the formulations are properly made and used.

What dosages are required? The recommended dosage range for rootworm control is from one-half to one pound per acre of any one of the recommended insecticides.

The general rule is to use from one-half to three-fourths of a pound per acre in banded applications such as starter fertilizer mixtures, and from three-fourths to one pound per acre in broadcast treatments. This will usually cost the grower between two and three dollars per acre, i.e., the value of about two bushels of corn at present prices.

Does It Pay?

Where rootworms are a problem, rootworm control pays off in increased yields and in straight, well-rooted stalks that pick clean. Where these insects are present, the use of insecticides will give yield increases from practically no increase to as much as 50 bushels per acre.

I am convinced, however, that the enthusiasm our farmers are showing for rootworm control is due even more to the "standability" of the treated corn than it is to the increased yields following treatment. The reason is that the lodging is easily seen and also very exasperating to the man who has to harvest the crop.

Most of our results with soil applications of insecticides have been with corn rootworms. Important as they are, they are just one of many pests which reduce the stand and yield of our corn crop.

Fortunately they are not the only ones that can be efficiently controlled by the proper use of insecticides. It appears, however, that they are easier to kill than most of the others, i.e., it takes less

a full day's work on half-a-day's fuel!

That's what an Oliver diesel tractor gives!

Switching to economical Oliver *diesel* power is a logical step in paring farm operating costs to help offset market declines. For an Oliver diesel will work almost *twice* as long on the same amount of fuel—does just as much on 6 gallons as a gasoline tractor does on 10.

Oliver, *first* to offer the American farmer a *complete* line of *true diesels*—from the 2-plow "66" to the 4-5 plow "99"—was also first to provide these *practical* farm power advancements, now associated universally with real tractor modernity:

...6-cylinder, overhead valve engine...six forward speeds...*independently controlled* power take-off, driven directly from the engine flywheel ...rubber torsion spring seat...a convenient hydraulic system permitting depth control from the tractor seat.

OLIVER

"FINEST IN FARM MACHINERY"

The OLIVER Corporation F27-1
400 West Madison Street, Chicago 6, Illinois

Please send me information on the famous Oliver diesel tractor fleet.

Name.....
(Please print)

Post Office.....

County.....State.....

The two Greatest Insecticide Successes since DDT

For more information from advertisers circle page numbers on ad index, page 56

aldrin

IN JUST A FEW SHORT YEARS aldrin has established an outstanding insecticide record. Its fast action against major crop pests has protected farm production and its low cost has meant widespread usage on many crops.

Soil Insects

For example, the control of underground insects has now become economically possible with the development of aldrin. Aldrin is unsurpassed for the control of major soil pests.

Here are just a few:

rootworms
wireworms
white grubs
chinch bugs
green June beetle larvae
European chafer grubs
sugar beet maggots
Japanese beetle larvae

Grasshoppers:

From the test tube on, aldrin has been the international "hopper-stopper." Whether halting the attacks of these voracious crop-eaters in North America or ending the famines caused by its cousin, the locust, in the Middle East, nothing approaches the incredible 99% control of just *ounces* of aldrin *per acre.*

Cotton Insects

And aldrin has been a boon to King Cotton! Its fast and low-cost control of the boll weevil has boosted yields and profits for thousands of growers.

dieldrin

Dieldrin leads the parade of those organic insecticides which have long residual action. And it controls a very wide variety of insects. For that reason, dieldrin is a fine stock item to meet the needs of growers *around the year.* Here are a few examples of dieldrin's versatility:

Cotton
boll weevil · thrips
cutworms · plant bugs

Turf Insects
ants · Japanese beetle larvae
white grubs · chinch bugs

Public Health Pests
houseflies · mosquitoes
fleas · ticks

Vegetables
tuber flea beetles · leaf miners
onion thrips · root maggots

Fruit
plum curculio
"catfacing" insects

Cereal and Forage Crops
armyworms · alfalfa weevil
chinch bugs

Aldrin and dieldrin can be formulated into dusts, wettable powders, emulsible concentrates, and granules—all common formulations.

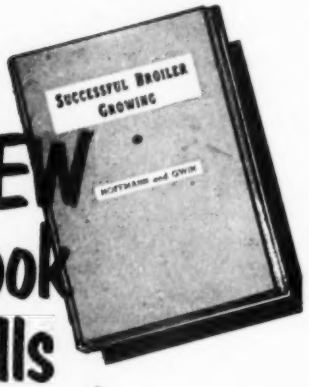
• • •

Their sale is backed by State and Federal recommendations and the finest of technical service. You'll find them good products to recommend to growers in your area.

SHELL CHEMICAL CORPORATION

AGRICULTURAL CHEMICALS DIVISION
CHEMICAL PARTNER OF INDUSTRY AND AGRICULTURE
P. O. BOX 2171, DENVER 1, COLORADO
Atlanta · Houston · Los Angeles · New York
San Francisco · St. Louis · Jackson, Miss. · Portland, Oregon

Raise Broilers for BIGGER Profits!



NEW book tells how You can...

- Develop local markets and boost your profits
- Build cheaper, more efficient housing
- Feed larger broods, faster and easier
- Prevent and control diseases which cut into profits
- Set up a money-making home dressing plant
- Follow successful brooding and management practices
- Answer your problems on all phases of broiler production

Order your copy NOW only $3.50 postpaid
Deluxe Edition

Successful Broiler Growing
The up-to-date guide book written by Dr. Edmund Hoffman and Dr. James Gwin, leading experts in the broiler field. Hard cover, fully illustrated.

CLIP AND MAIL TODAY!
WATT PUBLISHING CO.
Mount Morris, Ill.
Rush my copy of Successful Broiler Growing, postpaid. My $3.50 is enclosed.
Name.....
Address.....
City & State.....

chemical to do the job.

For example, we have evidence that it takes at least two pounds of aldrin, gamma BHC, or chlordane when applied broadcast and disked in, to give good wireworm control in corn land.

May Kill Other Insects

What kind of a "bonus" may we expect from rootworm treatments in the control of other soil pests? This picture is just starting to shape up and much of the evidence is observational rather than quantitative.

Experience in Illinois in 1953 indicated that one pound per acre of actual aldrin banded along the rows in starter fertilizer mixtures was quite effective against seed-corn maggots, seed-corn beetles, grape colapsis, wireworms, cutworms and perhaps other soil pests. A half-pound per acre applied in the same manner was apparently less effective.

For the present we do not advocate the use of more than one pound of actual insecticide per acre in starter fertilizer mixtures.

Insecticide Seed Treatment

Seed treatment with lindane has come on the scene for controlling wireworms and seed corn maggots. Lindane seed treatment has been widely used for the past four years, and the general reaction has been favorable.

We did some of the first work with insecticide seed treatments on corn in Iowa as early as 1949. Work has been in progress every year since, but most of our test fields haven't had sufficient wireworms for really good experiments.

A 25 percent lindane wettable powder is sold commercially for seed treatment. The manufacturer recommends a rate of four and one-half ounces per bushel of corn. Thorough mixing is desirable, and overdosing should be avoided.

Seed treatment is perhaps most effective for seed corn maggot and seed corn beetle control. It's fairly effective against wireworms—except in peat soil and in fields where there are very heavy infestations.

Encounter Some Difficulties

New developments in the seed treatment field include increased interest in other chemicals, notably aldrin and dieldrin, (which are now registered for use as seed treatments) and the introduction of several proprietary insecticide-fungicide mixtures.

We had some new experiences with lindane seed treatment in 1953 when a few widely scattered growers reported phytotoxicity from its use. Most of the complaints came from areas where the corn was planted in dry soil and with relatively high prevailing temperatures. This ties in with experience in the South, where lower dosages are recommended.

A second cause of difficulty was the use of light, fluffy formulations not suited for use on seed. The situation was further aggravated when these formulations were mixed with the seed in the planter boxes.

Consider Insurance Value

Soil insecticides can be recommended and used partly on an insurance basis. This is particularly true of seed treatments, where the cost is only 15 to 20 cents per acre.

However, it appears that direct soil applications, using relatively large dosages and costing considerably more money, may also be sound investments under many conditions. With present production costs most farmers can't afford to grow 50 bushels of corn per acre on 80-bushel land.

A moment's insight is sometimes worth a life's experience.
—Ralph Waldo Emerson

I'm indebted to Dr. Harold Gunderson for a few figures showing farmer acceptance of soil insect control in Iowa corn land. Last June he made a survey among the county extension directors of the state which revealed the following estimates for 1953:

(1) In 26 counties from which data were obtained (there are 99 counties in the State) there were 85,433 acres of corn ground treated for rootworms, wireworms, etc. (2) There were 24,155 bushels of seed corn treated with lindane in 23 counties. (Good results were reported from 10 counties.) (3) A total of 16,425 acres were destroyed by wireworms and other seed attacking insects in 25 counties. (4) Cutworms attacked 33,850 acres of corn in 25 counties. (Of these, 7,000 acres were sprayed and 10,385 acres were replanted.)—*End*

★

Moisture is a Menace

If you are interested in receiving a concise little booklet on how to rescue your home from the menace of moisture, write to the National Paint, Varnish, and Lacquer Association, 1500 Rhode Island Ave., N. W., Washington, 5, D. C.

They distribute this little booklet, and it contains valuable information illustrated throughout with charts, diagrams, and drawings. You will find it of practical value and of help to you in answering questions concerning the damage moisture does to houses.

A new series of trophies featuring various models of agricultural subjects including machinery and livestock are available to ag leaders. For information on a complete selection of such trophies, write to the National Agricultural Supply Co., Fort Atkinson, Wis.

★

Flannel Board Talk Available

Agricultural teachers and extension workers who are looking for new ways to focus audience attention will be interested in the flannel board talk, "The American Private Enterprise System," Revised. This illustrated lecture has been published recently as FCA Circular E-35-E by the Farmer Cooperative Service of the U. S. Department of Agriculture.

The talk was prepared for use by 4-H Club leaders, county agents, and others who have the opportunity of appearing before rural and urban groups. It is designed to show how all types of businesses help to provide needed services for the community. It also shows the helpful role which farmer cooperatives perform in the American economy.

Beautifully colored flannel board cut-outs have been prepared to enable the speaker to give a step-by-step presentation. These colored cut-outs can be procured at cost ($10.00 per set) by writing to the American Institute of Co-operation, 744 Jackson Place, N.W., Washington 6, D.C.

★

New Thompson Chemicals

Field research on heavily wooded stations in Missouri and Arkansas indicate greatly increased effectiveness and economy for broad spectrum herbicides of controlled volatility.

Latest data on the 2,4-d—2,4,5-T products which bear the trade name Bramble-Weedicide may be obtained by writing Thompson Chemicals Corp., St. Louis 3, Mo.

8

ways to easier, more profitable farming ...with agricultural chemicals from

CYANAMID

1. INSECT CONTROL

THIOPHOS® Parathion Insecticides . . . for broad, low-cost protection against more than 100 different insects, on more than 50 different crops.

MALATHON Insecticides . . . have low animal toxicity and control mites, aphids and certain other insects on fruit and vegetable crops.

2. WEED CONTROL

AERO* Cyanate, Weedkiller . . . selective, contact herbicide for killing weeds in onions and other crops.

3. DEFOLIATION

AERO® Cyanamid, Special Grade . . . for defoliation of cotton, soybeans, tomatoes and other crops, as well as killing potato tops to permit earlier, better harvests. Also used as a selective weed-killer in small grains, peas and other crops.

AERO* Sodium Cyanamid, Dust . . . for defoliation of cotton in extremely dry areas.

AERO* Cyanamid, Soluble . . . for cotton defoliation where it is desirable to use a spray.

4. FERTILIZATION

AEROPRILLS® Fertilizer Grade Ammonium Nitrate . . . contains 33.5% nitrogen, half in quickly available nitrate form and half in more slowly available ammonia form.

5. FERTILIZATION, WEED CONTROL, DISEASE CONTROL

AERO® Cyanamid, Granular . . . for weed control in tobacco plant beds; for disease (sclerotiniose) control in certain vegetable crops. Ideal for direct application, and to plow down with cover crops and stubble to make humus.

6. SOIL BUILDING

AERO-PHOS® Florida Natural Phosphate . . . replenishes the natural phosphorus reserve in the soil. One application lasts for several years. Low cost; easily applied in any season.

7. RODENT CONTROL

CYANOGAS® A-Dust . . . all-around pest killer for farm and garden. Kills ants, rats and other pests right in their nests or burrows.

8. SOIL CONDITIONING

AEROTIL* Wettable Flakes and Dry Form . . . for improving the structure of soils that tend to cake and crust.

*Trade-mark

WRITE FOR DESCRIPTIVE LITERATURE

AMERICAN Cyanamid COMPANY

AGRICULTURAL CHEMICALS DIVISION
32-E Rockefeller Plaza New York 20, N. Y.

BRANCH OFFICES: BREWSTER, FLA. • 3505 N. KIMBALL AVE., CHICAGO 18, ILLINOIS
DONAGHEY BLDG., LITTLE ROCK, ARK. • 111 SUTTER ST., SAN FRANCISCO 4, CALIF.
P. O. BOX 808, WINCHESTER, VA. • 5025 PATTISON AVE., ST. LOUIS 10, MISSOURI

BEFORE SPRAYING . . .
Weeds are higher than the corn.

Kansas FFA boys learn that . . .

Custom Spraying Pays

By Charles M. Kuenzi
Vo-Ag Instructor
Troy, Kans.

● THE IDEA OF DOING custom crop spraying came to the Troy, Kans., chapter early in the spring of 1952. The chapter had just purchased a new tractor outfit. To purchase it, some money had to be borrowed and the members were more than eager to find ways and means of paying off the note as quickly as possible.

When the idea of buying a weed sprayer was advanced to me by the dad of one of the boys, the members immediately began a careful investigation of the possibilities of custom crop spraying. Most of them realized that there were plenty of acres of crops, particularly corn, in our community which needed to have the weeds eliminated in some way.

Competition Might Be Keen

They also knew that there was an aerial crop spraying service available in the county and that our competition might be keen. However, several expressed a belief that we could still get plenty of spraying jobs because the aerial service was not entirely satisfactory due to the roughness of our topography and the diversification of crops.

Troy is located in northeast Kansas in an area which raises principally corn, soybeans, oats, and wheat for grain purposes.

After much discussion in a regular meeting early in May 1952, a committee was appointed to look at various types of sprayers on the market and to determine approximately what returns might be expected. After this committee finished its investigation and made its recommendations, the chapter unanimously agreed to purchase the outfit and get started.

A front-mounted boom type sprayer was purchased from a local dealer who very kindly advanced the chapter credit on the sprayer and materials until the end of the spraying season.

The next big hurdle to overcome was to decide who would operate the outfit. Again a committee was appointed to make a study of various methods which could be followed and the recommendation was that each member be assigned a work day and be responsible for the work which needed to be done that day.

This plan met with approval and a work schedule was drawn up. Most of the boys had had no experience in operating a sprayer, so instruction periods were held during regular shop classes to make each boy a competent, dependable operator.

Everything progressed nicely up to this point, but we still didn't have acres signed up to spray. And after all, the success of our undertaking depended upon the number of acres that we would be able to contract.

AFTER SPRAYING . . .
Corn is clean, easier to handle

THEY BOUGHT A SPRAY RIG . . .
Profits from custom spraying paid for it.

Again the chapter members went to work. Each boy became a salesman. An advertisement was placed in the local newspaper and very shortly about 250 acres had been signed up.

When the spray season actually got under way, I contacted the farmers who wanted spraying done and arranged a schedule. We soon found that it was possible to do from 35 to 40 acres a day if the water supply was close at hand.

I also went with each boy to start a job and observed him in action to see that he was doing the work satisfactorily. My schedule of farm visits was arranged so that I could be in the immediate area in case the boy had trouble.

Work is Guaranteed

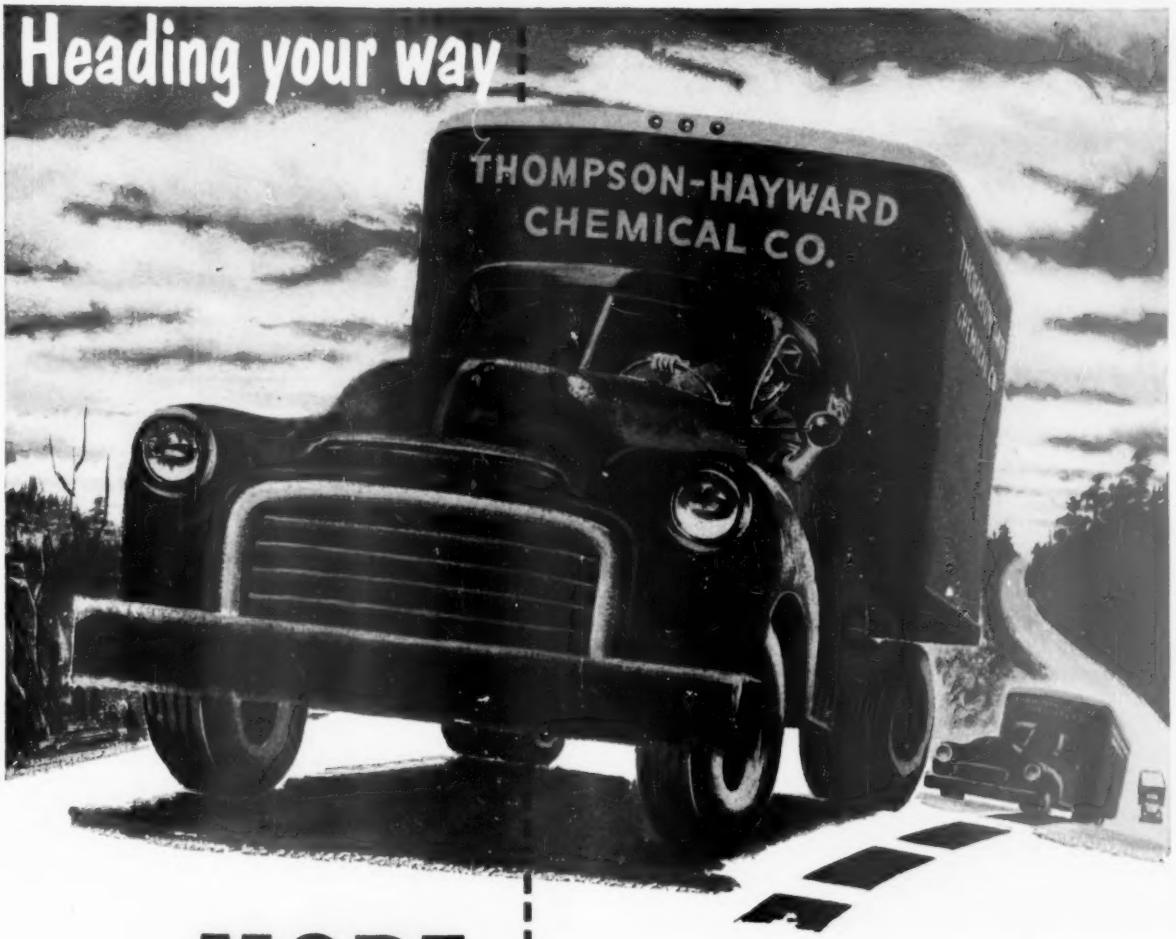
In the area adjacent to Troy, the two principal weed enemies of corn are sunflowers and cockleburrs. Both of these are broad-leaf weeds and this fact made 2-4D the logical weedicide to use. Spraying with 2-4D does not harm the corn plant appreciably.

Our results have been very good in most cases from using one-third pound of 2-4D acid per acre. We have found that by spraying the sunflowers and cockle-burrs while they are in the early stages of growth, a satisfactory kill can be made.

There are other possibilities which could be developed by a chapter which owns a sprayer. We have concentrated primarily on spraying corn, but have also sprayed some pasture and fencerows for weeds and buck-brush.

One additional service which could be rendered by a chapter, and one which we are contemplating doing next year, is the spraying of cattle for flies. This can be worked in very well with weed spraying because it will follow after most weed spraying has been completed.

Our chapter has now completed its second successful year of doing custom spraying. We find this to be an excellent community service activity.—*End*



MORE farm tested PESTICIDES!

Availability's what counts in pesticide chemicals. Near-at-hand stockpoints — fast, sure delivery saves time and profits. Eighteen warehouses and a fleet of fast trucks serve the mid-states north and south! If you want your order when you want it, buy Thompson-Hayward.

LOOK FOR THE TAG ON THE LABEL

FARM-TESTED CHEMICALS

THOMPSON-HAYWARD CHEMICAL COMPANY

KANSAS CITY • NEW ORLEANS • DENVER • OMAHA • CHICAGO • MEMPHIS
DAVENPORT • WICHITA • DALLAS • HOUSTON • ST. LOUIS • DES MOINES • SAN ANTONIO
N. LITTLE ROCK • OKLAHOMA CITY • MINNEAPOLIS • TULSA • LUBBOCK

These men and women will lead the club agents' association during the coming year. L-r, Robert Deming, Connecticut and R. J. Rensink, Wisconsin, directors; Lloyd Strombeck, New York, president; Margaret Fitzpatrick, Massachusetts, secretary; Merle Eyestone, Kansas, treasurer; M. H. Avery, Michigan, first vice-president; and Bill Davenport, New Jersey, past-president.

The past-presidents club now includes (l-r) Bill Davenport, New Jersey; Andrew Olson, Michigan; Donald Stiles, New York; Clara Oberg, Minnesota; and Henry Krebser, Connecticut.

Seven people were honored at the convention with Distinguished Service awards. Club agents receiving them were, seated, (l-r) Bonnie A. Peck, West Virginia; Elizabeth R. Roper, New Hampshire; and Margaret Edwards, New York. Standing, Mel H. Avery, Michigan; Leon O. Marshall, Massachusetts; and John L. Stookey, New York. Guy L. Noble, Chicago, also received an award.

1953 NACCA Convention

Photos by Better Farming Methods

● ATTENDING DELEGATES agreed unanimously that this was the biggest and best NACCA convention ever held. From a handful of organizers seven years ago, membership reached the all-time high of 321 during 1953.

In a nutshell, here are the highlights of the convention.

Registration—Approximately 115 from 14 different states.

New Officers—Lloyd Strombeck, Owego, N.Y., president; M. H. Avery, Mason, Mich., first vice-president; Sarah Harman, Parkersburg, W. Va., second vice-president; Margaret Fitzpatrick, Hathrone, Mass., secretary; Merle Eyestone, Topeka, Kans., treasurer; and Robert Deming, Danbury, Conn., R. J. Rensink, Manitowoc, Wis., and Isabelle Bardon, directors.

Distinguished Service Award Winners—Margaret L. Edwards, New York; Bonnie A. Peck, West Virginia; Elizabeth R. Roper, New Hampshire; M. H. Avery, Michigan; Leon O. Marshall, Massachusetts; John L. Stookey, New York; and Guy L. Noble, chairman, National Committee on 4-H Club Work, Chicago.

Business—Amended the constitution to allow other professional workers who work entirely with 4-H club boys and girls to join the association regardless of whether they carry the title of county 4-H club agent.

Relaxation—Meals and entertainment, compliments of Standard Brands, Inc., Kellogg Company, Standard Oil Company, Thomas E. Wilson & Company, Sears-Roebuck Foundation, Mathieson Chemical Corp., Massey-Harris Company, International Harvester Company and U.S. Rubber Company.—*End*

Michigan delegates passed out to club leaders copies of the Ford Motor Company anniversary book and samples of Dow chemical weed and brush killers.

Any convention where club agents from Wisconsin were present would be incomplete without samples of Wisconsin cheese.

New 2-day Treatment for Calf and Pig SCOURS

Scouring pigs? Diarrhea? Stop scours fast with new Terramycin Animal Formula.

Prevent scours in new-born calves. Mr. H. C. Rose, Rossville, Ind., writes, "We control calf scours with Terramycin. To date I have not seen even a trace of the disorder, which in the past was my most costly problem."

New, easy-to-use, wonder-working

Terramycin

BRAND OF OXYTETRACYCLINE

ANIMAL FORMULA TABLETS

NEW EASY TREATMENT FOR SCOURS, ENTERITIS, PNEUMONIA, SHIPPING FEVER, SEPTIC INFECTIONS

- ***Actual size***
- ***Scored tablet:*** Easy to break in half for small dosages.
- ***Easy to use:*** No mixing. No measuring. No equipment needed.
- ***Simplifies treatment:*** Terramycin, given by mouth, is quickly absorbed, gives sustained drug action. Fight Pneumonia, Shipping Fever this easy way.

Suggest new Terramycin Animal Formula Tablets containing the wonder-working antibiotic Terramycin to stop costly calf and pig scours.

No other antibiotic is effective against more animal diseases and possesses activity against more disease-causing organisms than Terramycin.

Now, combat Infectious Scours and Diarrhea in pigs and calves with the wonder-working antibiotic Terramycin in a handy, easy-to-use form —new Terramycin Animal Formula Tablets.

Quick-acting Terramycin hits directly at a wide range of dangerous bacteria in the digestive tract of scouring calves and pigs—often clears up Infectious Scours and Diarrhea in as little as two days!

New Terramycin Animal Formula Tablets are administered by mouth, making treatment extremely simple. There's no mixing. Nothing to measure out. No equipment necessary.

Get new Terramycin Animal Formula Tablets at your Animal Health Headquarters today.

Where animal disease strikes in your community suggest that the owners call the Veterinarian at once. They can rely on his skill and knowledge—now aided by Terramycin.

Pfizer

Chas. Pfizer & Co., Inc., New York

World's Largest Producer of Antibiotics

Tips for all ag leaders on how to . . .

Handle Insecticides With Care

By Harold Heldreth
National Safety Council

STORE CHEMICALS SAFELY . . .
Children cannot read the labels.

PROTECT THE NOSE AND THROAT . . .
If directions say so, wear a respirator.

ALWAYS FOLLOW DIRECTIONS . . .
Some sprays can't be used in certain places.

● THERE IS NO non-poisonous insecticide but the most poisonous insecticide can be used safely. If used improperly, even insecticides usually considered safe can be dangerous.

Some of the least toxic materials such as pyrethrum, commonly known as "insect powder," and rotenone usually have irritating effects on skin, nose, and throat. Most casualties occur from carelessness or failure to follow directions.

So many new products or new trade names, and new applications, complicate the insecticide problem. Even trained entomologists and plant pathologists find it difficult to keep abreast with new developments, but they do extensive research continuously to determine safe and effective uses.

Users of insecticides must also keep up to date on these new developments and follow recommendations on safe and effective application.

Store Insecticides Carefully

Storage should be in a special place, preferably under lock and, at least, out of reach of children and irresponsible persons.

Keep insecticides in closed containers. Dangerous ones should be plainly marked *poison*.

Insecticides should never be left where they may contaminate food or be accidentally mistaken for starch, baking powder, or other cooking ingredients. Sodium fluoride, as roach powder, and poisonous ant bait present the greatest dangers, and next dry arsenic.

Many fatalities have been reported where these basic safety precautions were not followed. A case is recorded where sodium flouride was kept in the kitchen cupboard. Mistaken for baking powder, it was used in biscuits and caused a death.

In another instance, a barrel of sodium flouride, mistaken for flour because it was stored near supplies of cooking ingredients, resulted in the death of about 50 people in a public institution.

Keep Away from Fire

Keep insecticides away from fire, some are inflammable. Inflammable or not, they should always be stored away from fire. Never use inflammable sprays in the presence of an open flame or other source of ignition.

Read the label on each package carefully, note its warning and instructions, and follow them. Instructions and cautions printed on labels are the result of extensive testing by manufacturers, governmental, and private agencies.

Labels which state, "don't allow material to come in contact with the skin, don't inhale, change clothing after application," mean exactly that. If you are not sure about certain directions, reread and make sure. Users who are careless in application, techniques, and who do not wear protective clothing or mask where called for, are literally inviting disaster.

Consult Authorities on Use

Don't use an insecticide for anything not recommended.When in doubt consult some authoritative source such as your entomologist at the state agricultural experiment station or the U. S. Department of Agriculture. They have the latest information available on insecticides and will be glad to help you.

Open containers for mixing or preparing insecticides should never be left unattended where children, live stock or pets can reach them. Unused mixtures which cannot be stored for future use, should be buried in the ground or otherwise disposed of safely. Poison carelessly dumped on the ground is a menace to children and domestic animals.

Wear Gloves When Mixing

When mixing or applying insecticides, wear gloves reserved for that purpose. Clean the gloves after each use. Mix outdoors or in a well-ventilated place, so fumes will not be inhaled. Many are injurious and may be fatal.

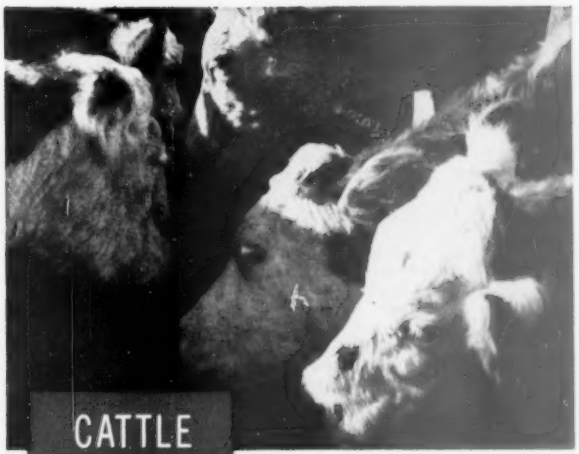
When spraying, it is desirable to wear clothing that will cover the entire body. Care must be taken to keep poisonous materials out of the mouth and eyes. Even such materials as pyrethrum, rotenone and sulphur can cause severe irritation of nose and throat. If at all possible, spray *with* the wind.

For extensive dusting or spraying, goggles and respirator should be worn to protect eyes, nose and mouth. Always wash face and hands after working with insecticides. After large jobs, also bathe and change clothes.

For successful results select a suitable

TOXAPHENE PROTECTS

FOOD, FEED, AND FIBER CROPS



Official recommendations in the United States now list toxaphene insecticides for control of more than 170 species of insect pests. Farmers in all sections of the country have come to depend on low-cost, effective toxaphene formulations.

More and more dealers are stocking toxaphene insecticides to offer customers thorough protection of a wide variety of food, feed, and fiber crops.

Naval Stores Department

HERCULES POWDER COMPANY

905 King St., Wilmington 99, Delaware

N25-3-17

PLAN TO DUST... and dust with a plan

A regular, planned dusting program to control insects and disease will assure you maximum crops of highly profitable produce.

Substandard crops bring substandard prices... or don't sell at all in the market. You can't afford to take a chance with your crops by using haphazard methods and inferior materials. Remember, it's your income that's at stake.

Better growers everywhere are dusting regularly, spring to fall, with Niagara dusters and Niagara materials. They're harvesting top-grade crops, the clean crops that bring premium prices.

Your Niagara field man will gladly help you outline a planned protection program for all season control. Call him in today, or write us, and we will have him see you.

Weed and Brush Killers

Niagarathol Crop Desiccants

50 YEARS OF SERVICE

Use these Quality NIAGARA Materials TO GROW TOP VALUE PRODUCE

C-O-C-S Fungicide
KOLO Sulphur
*Z-C Fungicide
NIATOX(DDT)
CALCIUM ARSENATE
LINDANE
TEPP
ROTENONE
PHOSKIL (Parathion)

The above materials are available in various dust and spray combinations

*Reg. U.S. Patent Office

Niagara INSECTICIDES AND FUNGICIDES

Niagara Chemical Division

FOOD MACHINERY AND CHEMICAL CORPORATION

Middleport, N.Y., Richmond, Calif., Jacksonville, Fla., Tampa, Fla., Pompano, Fla., Wyoming, Ill., New Orleans, La., Ayer, Mass., Greenville, Miss., Harlingen, Tex., Pecos, Tex., Yakima, Wash., Subsidiary: Pine Bluff Chemical Co., Pine Bluff, Ark. Canadian Associate: NIAGARA BRAND SPRAY CO., LTD., Burlington, Ontario

WHEN YOU BUY Niagara YOU BUY PROTECTION fmc Trade Mark

PIONEER DAIRY FEEDS · RED COMB POULTRY FEEDS · PIONEER HOG FEEDS

Efficient feeding programs for all livestock and poultry that produce *"Quality Results at Low Cost"*.

WRITE FOR FREE BOOKLETS AND CIRCULARS

HALES & HUNTER CO.
141 W. Jackson Blvd., Chicago 4

Book For Poultry Raisers

"A. B. C. of Poultry Raising"

By J. H. Florea of Poultry Tribune. A complete guide for beginner or expert. By means of many photographs, diagrams, and non-technical instructions, it explains every detail from building your first coop to dressing the fowl for food. 206 pages, cloth binding, well illustrated. Price $3.00

Better Farming Methods, Mount Morris, Ill.

Two judging pictorials are included in this issue on pages 28 and 57. Reprints of these are available at a cost of 5 cents each.

insecticide and apply effectively, safely, and at the right time. A spray rod or gun, and the discharge tube of a duster must be manipulated in such a manner, and at such time, that thorough coverage of poison will be produced *where* they are most needed, and *when* they will do the most good.

Time and manner of application are equally as important as choice of insecticide with insect pests and diseases of agricultural crops where susceptible state of organisms may be of short duration, and where it may be important to reach well-hidden fruits on the under side of leaves.

Educate People on Use

County agricultural agents, vocational agricultural teachers and other local leaders can assist in eliminating dangerous conditions and practices in handling, storing and using insecticides through:

1. Talks, demonstrations, stunts, and other cooperative activities. Safe handling and storing of insecticides can be well illustrated by stunts.
2. Display of posters illustrating good and bad practices in handling and storing insecticides. Posters made locally will probably be more effective, but purchased ones should also have a place in the safety program. Students should become more safety conscious while making safety posters.
3. Showing motion pictures and film strips.

When handling insecticides, a good preventive program is the best insurance against injury, ill health, or spraying accidents.—*End.*

★

Blight Resistant Corn

Resistance to northern corn leaf blight has now been bred into the susceptible but otherwise desirable breeding stock from which the corn hybrids are produced commercially.

This means that blight-resistant hybrids will be available to Corn Belt Growers in a few years and in due time should replace the present susceptible varieties. The new resistant lines are said to be at least as good as the original susceptible inbred lines both in yield and other important characteristics.

This work was done at USDA's Plant Industry Station at Beltsville, Md., and at Purdue.

★

Watch Him Run . . .

City Slicker: "If I cut through your pasture, do you think I could catch the 7:33 train?"

Farmer: "Mister, if my bull sees you, you'll catch the 6:30 train."

For more information from advertisers circle page numbers on ad index, page 58

Potent Fly Killer

Here's an answer to the 64 million dollar question of what to do about the "resistant" fly that is hard to kill with DDT and its successor, Lindane.

California Spray-Chemical Corp. claims that its new product, "ORTHO Fly Killer," a combination of Lindane and a phosphate chemical, will knock out both "normal" and "resistant" flies, and further, that extensive tests with many generations of flies show no build-up of resistance.

For complete information, write to this company at Richmond, Calif.

★

Teacher Wins Pfizer Contest

Leonard W. Beadle, vo-ag teacher, Clinton, Wis., won the $5,000 first prize in the Pfizer National Hog Judging Contest.

This national hog judging contest was sponsored by the Pfizer Company, and the finals were held during 4-H Club Congress week in Chicago.

Not only did Beadle win first prize in the senior division, but one of his vo-ag boys, Ronald Smith, Tiffany, Wis., won first prize, a $500 savings bond in the junior division of the contest.

The two Wisconsinites were among 24 finalists from 10,000 original participants. The live-hog judge-off was held December 1 in the swank Normandie Lounge of the Conrad Hilton Hotel in Chicago, where 16 scientifically raised hogs competed for attention with the regular guests. The hogs, from the Pfizer Experimental Farm near Terre Haute, Ind., were the raw material for the judging.

Scores compiled by the finalists were compared with an official score set up by a panel of professional judges composed of Prof. Arthur L. Anderson, Iowa State College, Ames, Ia.; Wilbur Plager, field secretary, Iowa Swine Producers Association, Des Moines, Ia.; Oscar W. Anderson, president, Poland China Association, Leland, Ill.; and Louis T. Thompson, Rath Packing Company, Waterloo, Ia.

STEAKS from CORNCOBS

You can now produce quality beef at low cost from corncobs, stover and silages that may pass through cattle undigested.

Just feed these cheap roughages in combination with manufactured feeds formulated with ARCADIAN* Feed Urea.

The breeding herd and young stock will get more out of dry pasture grasses and protein-poor hay when properly supplemented.

Range concentrates, cattle cubes and other prepared feeds made with ARCADIAN Feed Urea nourish the bacteria in the rumen, causing them to multiply in great numbers and rapidly digest roughages. The urea nitrogen is built into bacterial protein which cattle convert into valuable meat.

You make money two ways when you buy feeds containing ARCADIAN Feed Urea. You get high-quality manufactured feeds at low cost and you get real feed value from low-cost roughages. See your feed dealer today!

NITROGEN DIVISION
ALLIED CHEMICAL

BACKED BY 64 YEARS OF NITROGEN EXPERIENCE

*Trade mark

NITROGEN DIVISION
ALLIED CHEMICAL & DYE CORPORATION
New York 6, N. Y. • Richmond 19, Va. • South Point, O • Hopewell, Va.
Atlanta 3, Ga. • Columbia 1, S. C. • San Francisco 3, Calif.

ARCADIAN* FEED UREA

To encourage use of ag chemicals . . .

Sell a Program– Show a Profit

By Burton Seeker
Extension Editor
South Dakota State College

● IN TODAY'S DEMANDING agricultural setup, the progressive farmer is always on the lookout for an idea that will bolster his shaky profit margin.

The proposition of selling the use of agricultural chemicals hinges on proving their value. It can be done by organizing, stimulating interest, stirring up action, and then letting the program carry itself.

As a case in point, take the work of Cecil Sanderson, agent for Roberts county in South Dakota's northeastern croplands region. When he took his job there in 1945 after finishing a hitch in the army, it was evident that weeds presented the big problem job. The county was infested with Canada thistle, sow thistle, leafy spurge, field bindweed and quackgrass—five of South Dakota's eight noxious weeds.

First Step—Organization

None of the farmers were purposely cultivating sow thistle or contemplated marketing field bindweed. The problem wasn't just to sell weed control. The question was what could be done about it.

The first steps were organizational—to set up a program on a township and then neighborhood basis. Neighborhood leaders were elected for local administration and to report menace areas. In 1946 county tax assessors agreed that during their rounds they would spot and record noxious weed infestations. These were translated onto master maps.

Second Step—Demonstration

Then the demonstrations were begun. Neighborhood leaders were trained in their responsibilities. The first year, a county-wide plot demonstration was held.

With the advance of the program, this work has been divided into smaller groups under Herbert Hokanson, county weed supervisor. Twelve of the demonstrations were held last year and 15 the year before covering patch work, field and aerial spraying, rate of application, best times for applications, and warnings of susceptible crops.

The demonstrations are held late in May or early in June, just prior to the spraying season. Although commercial chemical firms do not take part, they are invited to display and explain their wares.

It takes money to operate a program of this type and after two years of reverses, funds were approved in 1947. Also it became apparent that other programs would suffer if Sanderson continued to devote so much of his time to weed control so Herbert Hokanson was engaged as county weed supervisor. The program is continuing under his guidance with Sanderson maintaining a strong interest.

During the first year of the program the weed fighters used small sprayers to treat weed patches. Signs were erected at the sites identifying the weed and outlining the treatment for control. These signs were valuable in provoking a stir of interest in the new-born program.

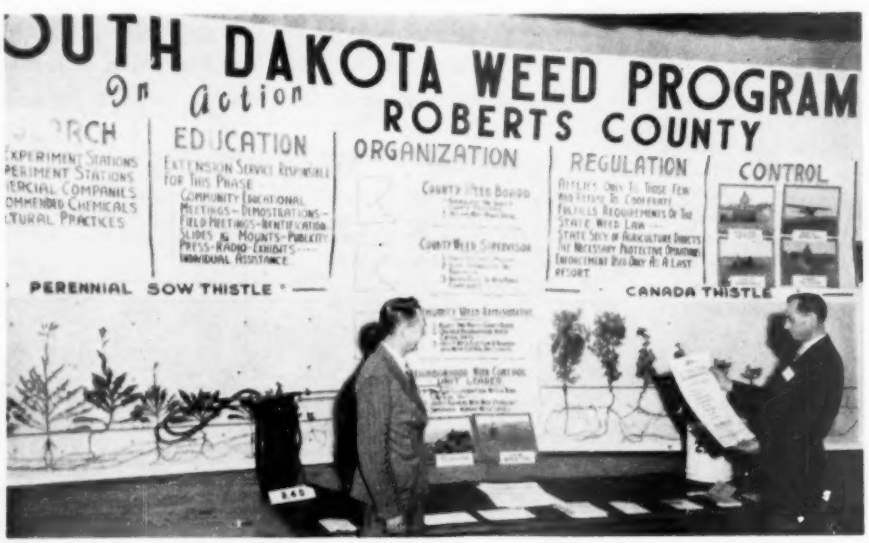
Agents Use Pictures

Hokanson and Sanderson make good use of pictures, particularly colored slides in their work. Among their demonstration slides is one of a 10 acre flax field. A straight line down the middle of the field marks the difference between a poor and good yield.

The story behind the picture is this: The owner of the field was aware of his weed problem but reluctant to spray for fear of injuring his crop. Ultimately, he agreed to spraying half his field as a test.

When the sprayed portion suffered a setback he was sure his fears were well founded. Then the treated area came back to yield an additional eight bushels of flax per acre. This man now appears at weed control meetings to voice his testimonial to the work.

Hokanson now feels the program is at the turning point, the spread of weeds has been checked and from here on in the work will be toward eradication. The program largely has been successful. In fact, Sanderson wryly admits that often times now the problem is to prevent enthusiastic farmers from soaking crops



At right is Herbert Hokanson, Roberts county weed supervisor, and Leonard Schrader, former weed specialist, South Dakota State college.

Weed fighters in Roberts county told the story of their program in a massive exhibit first shown at the South Dakota state fair.

TEAR THIS OUT

ORCHARD® BRAND DEPENDABLE SPRAY MATERIALS

FOR INSECT CONTROL

Genitex* Spray Powder (50 & 75% DDT)
Genithion P-15 Spray Powder (15% Parathion)
Genithion PEM 250 Emulsifiable Concentrate (25% Parathion)
Parathion EM-4 Emulsifiable Concentrate (4 lbs. per gal.)
Lindane 75% and 25% Spray Powder
Lead Arsenate, Astringent, Standard, Basic
Genite† 883 (p-chlorophenyl p-chlorobenzene sulfonate)
Aramite Wettable Powder and Emulsifiable Concentrate
50% TDE Spray Powder
25% TDE Emulsifiable Concentrate
Nicotine Sulfate, 40%
"400" Spray (4% Rotenone)
"100" Dust (1% Rotenone)
"75" Dust (¾% Rotenone)
Dieldrin Spray (Emulsifiable Concentrate)—1½ pounds per gallon
TEPP 20% and 40% Liquid Concentrates
Malathion, Emulsifiable Concentrate and Spray Powder

DISEASE CONTROL

"530" Spraycop* (53% Metallic Copper)
"340" Spraycop (34% Metallic Copper with spreader-sticker)
Bordeaux Mixture
Copper Sulfate (Crystal and Monohydrate)
Ferbam Spray Powder
Ziram Spray Powder
"Puratized" Agricultural Spray (Organic Mercury)
"Puratized" Apple Spray (Organic Mercury)
Spergon and Phygon Seed Protectant and Spray Powder
Dritomic* Sulfur
Micro-Dritomic* Sulfur
Lime Sulfur Solution

WEED AND BRUSH CONTROL

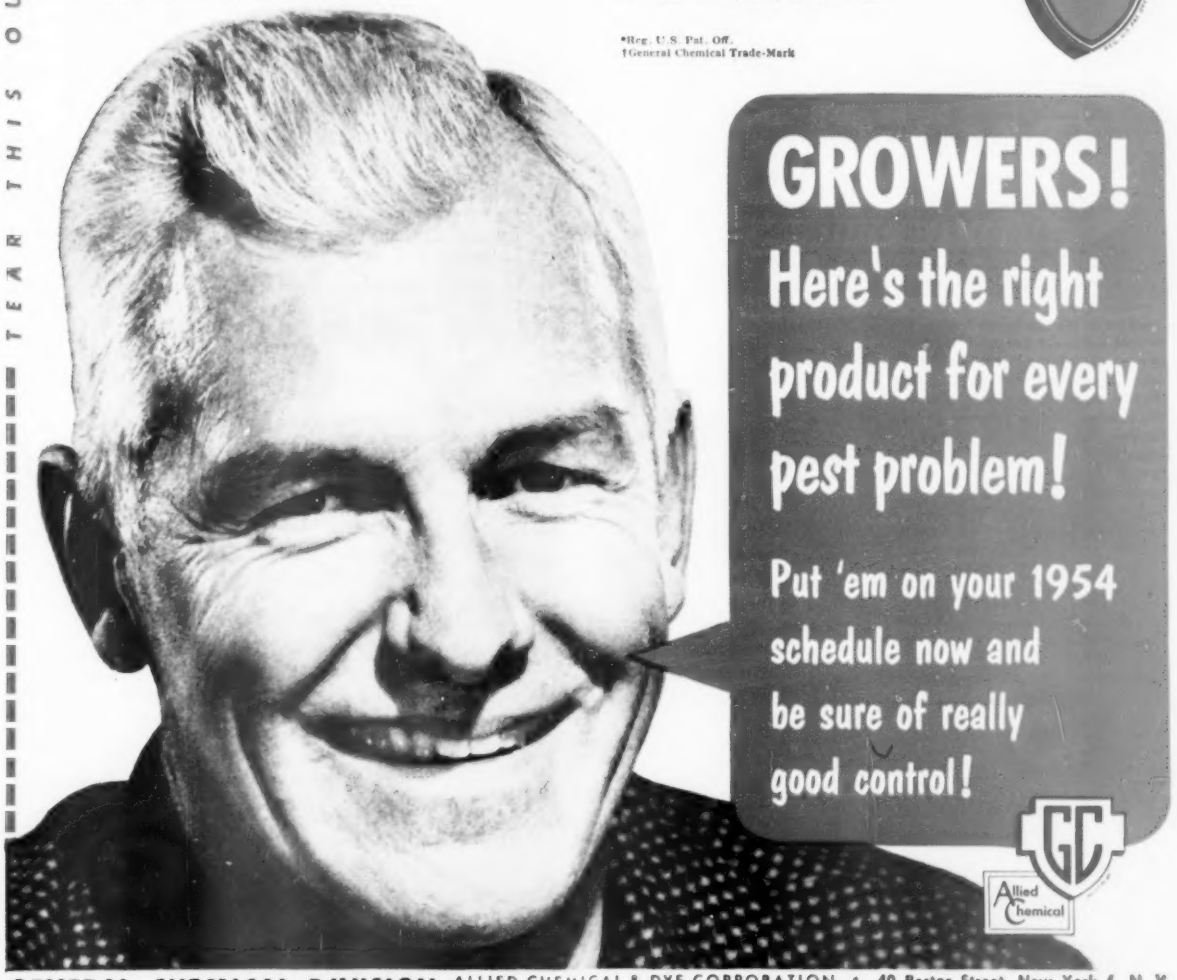
2,4-D • 2,4,5-T Brush Killers
MCP Amine Weed Killer
Sodium Arsenite
2,4-D Amine and Ester Weed Killers
Potassium Cyanate
TCA Sodium Salt, Powder and Liquid Concentrate

OTHER GROWER AIDS

Stafast* (for thinning apples)
Stafast and Sta-set† Pre-Harvest Sprays
Filmfast* Spreader-Sticker
Genifilm "L" Liquid Spreader-Sticker

ORCHARD BRAND SPRAY MATERIALS

*Reg. U.S. Pat. Off.
†General Chemical Trade-Mark


GROWERS!
Here's the right product for every pest problem!
Put 'em on your 1954 schedule now and be sure of really good control!
GC
Allied Chemical

GENERAL CHEMICAL DIVISION ALLIED CHEMICAL & DYE CORPORATION • 40 Rector Street, New York 6, N. Y.
Offices in Principal Agricultural Centers from Coast to Coast

FREE...
ADVERTISING AIDS...

. . . here's a carefully prepared collection of free advertising materials to help boost your profits through increased sales of Chlordane and Heptachlor. The panphlets, booklets, window streamers, self-mailers and formulating information will make your selling easier and more effective.

Order Your Supply of These Salesmakers *NOW!*

No.
18 Chlordane for Household Insect Control
20 Chlordane for the Control of Swine Mange
23 Chlordane for Japanese Beetle Control
24 Chlordane for Grasshopper Control
30 Chlordane in Fertilizer
32 Control of Pests on Dogs with Chlordane Formulations
33 Ants (Chlordane)
36 Chlordane for Fly Control
37 Chlordane for the Control of Onion Insect Pests
38 Chlordane for Soil Infesting Insect Control
39 Chlordane for Control of Box-Elder Bugs
41 Chlordane for Cabbage Maggot Control
42 Chlordane for Control of Strawberry Insect Pests
47 Chlordane for European Earwig Control
48 Chlordane for Seed Treatment
49 Heptachlor for Control of Mosquitoes
50 Heptachlor for the Control of Eye Gnats
51 Heptachlor Granular Formulations
52 Heptachlor for Control of Onion Maggots
53 Heptachlor for Control of Rootworms on Peanuts
54 Heptachlor for Sand Fly Control

Form
314 Chlordane for Effective Control of Alfalfa Weevils
315 Chlordane Controls Turf Insects
316 Chlordane Controls Wireworms in Tobacco Transplant Water
317 Chlordane for Effective Termite Control
318 Mosquito Control with Chlordane
319 Chlordane Controls Lawn Insects
320 Control Chiggers with Chlordane
321 Effective Termite Control with Chlordane
322 Chlordane for Control of Cattle Lice and Ticks
323 Chlordane Controls Wireworms in Potatoes
324 Heptachlor Controls Wireworms on Potatoes
325 Potato Wireworm (broadside) Chlordane
326 Control Cotton Insects with Heptachlor
327 Cotton Insect (broadside) Heptachlor
328 How to Control Alfalfa Weevils with Heptachlor
329 Alfalfa Weevil (broadside) Heptachlor
330 Chlordane Controls Corn Rootworms
331 Alfalfa Weevil Window Streamer—Heptachlor
332 Cotton Insect Window Streamer—Heptachlor
333 Lawn Insect Window Streamer—Chlordane
334 Chlordane Controls Strawberry Root Weevils
174 Velsicol Chlordane
209 Subterranean Termite Control with Chlordane

Advertising Dept. B
VELSICOL CORPORATION
330 E. Grand Ave., Chicago 11, Ill.

Please send me ____ copies of these circled free advertising materials: No. 18, 20, 23, 24, 30, 32, 33, 36, 37, 38, 39, 41, 42, 47, 48, 49, 50, 51, 52, 53, 54, Form 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 174, 209.

Name _____

Address _____ City & State _____

VELSICOL CORPORATION
Division of Arvey Corporation
General Offices and Laboratories
330 E. Grand Ave., Chicago 11, Ill.
Export Division
100 E. 42nd St., New York 17, N. Y.

SOME FARMERS HESITATED . . .
Results, however, brought them in.

with too heavy an application or from spraying susceptible crops.

Selling a cattle spraying program has one big advantage: Results are more readily apparent, according to Roland J. Fineran, extension agent, Hughes county, South Dakota. When Fineran was promoting spraying to control cattle pests in his county, he simply ignored the dissenters. When the stay-outers realized the results others were gaining, most were quick to join up.

Fineran's program on spraying to control livestock pests runs a close parallel to Sanderson's weed program. First came the organization on the township basis. Fineran feels this setup stirs more interest since it brings the program closer to the people.

County Buys Spray Rig

Demonstrations were staged on the larger ranches with proper equipment to show ideal handling methods. The following year the over-all program was put underway.

The county bought a surplus military spray rig which was used at first. Township leaders worked with their neighbors in mapping out the route for the sprayer to follow. Educational activities were carried on the year before. So many ranchers were eager to sign up that those who chose to disagree were simply left out. Most of them joined after watching results, however.

Results Prove Spray Value

After the initial big push the program carried itself easily. The county-owned sprayer was used for two years and is now kept on standby status. Ranchers are encouraged to contact with commercial sprayers for the work and some communities have purchased equipment on a cooperative basis.

Fineran has never been able to accurately tabulate results of livestock spraying in his region. When a herd is halved and one group sprayed the difference between the sprayed and unsprayed groups becomes so apparent that the rancher invariably insists on spraying the second group before results can be tallied.

In one herd of 10,832 head of cattle the animals gained an estimated average of 35 pounds after being sprayed for flies and lice. The market price at that time was 18 cents a pound or an increase in value of $6.30 an animal.

Not a bad return on a spraying investment of 15 cents an animal.—*End.*

★

Dehydrate Sweet Corn

Sweet corn can now be dried and kept indefinitely as acceptable human food by a dehydration process developed after three years of research by food technologists at the University of Illinois.

Dehydrated sweet corn has to be soaked about 90 minutes and cooked for 30 minutes, but the product makes good food. Under normal conditions the dehydrated corn will not spoil. It will keep for six months under temperatures as high as 100 degrees F., a standard set up by the army.

★

Mixed Cotton Sprays

Promising results have been obtained in Texas from the use of combination sprays against pink bollworms, boll weevils, bollworms, cotton aphids, cotton leafworms, and spider mites. The spray combinations consisted of DDT with methyl parathion or Metacide in tests carried on cooperatively by the USDA and Texas A & M College.

Average seed cotton yields from the sprayed test fields were almost three times as high as those from the untreated test areas.

★

Stockmen's Catalog

A new catalog especially for farm and ranch use has been published. Planned to offer equipment you can't buy in local stores, it features all types of livestock markers, castrators, hog and sheep supplies, as well as equipment for dairymen, showmen, and artificial breeders.

Glancing through the pages you will find such unusual items as left-hand and right-hand hoof knives, cow boots, rubber band elastrators, tattoo instruments, and sheep bells tuned to harmonize. If you want a copy, write to NASCO, Fort Atkinson, Wis.

For more information from advertisers circle page numbers on ad index, page 56

"Best control of damp-off in celery seed beds"

Florida celery grower's case history: "ORTHOCIDE 50 Wettable has given the best control of damp-off in celery seed beds of any material we have ever used" reports C. A. Thomas, Lake Harbor, Florida.

Mr. Thomas said he had no stunting with ORTHOCIDE. He also used this new ORTHO fungicide on his cabbage beds. ORTHOCIDE is compatible with many insecticides.

Applying ORTHOCIDE 50 Wettable to celery seed beds on the C. A. Thomas farm, Lake Harbor, Florida.

T.M.'S REG. U.S. PAT. OFF.: ORTHOCIDE, ORTHO

More enthusiastic growers' reports endorse the new fungicide

ORTHOCIDE

50 Wettable*

*A wettable powder suitable for the control of certain potato, tomato, cucurbit and carrot diseases, certain fungus diseases of fruits, and many other uses. Contains 50% Captan.

World leader in scientific pest control

ORTHO®

SCIENTIFIC PEST CONTROL

"Excellent protection from early and late blight of tomatoes"

New Jersey reports on tomatoes and celery: Michael Donaruma writes that even with last year's frost conditions his ORTHOCIDE-treated tomatoes held up as well as they ever had under the best circumstances. Also, he reports, thanks to ORTHOCIDE, there was uniformity in his celery plants and no loss to blight.

Tony Ambrosino, Box 63, Keyport, New Jersey, used 2 to 3 pounds of ORTHOCIDE 50 Wettable per hundred per acre and sprayed five times during season. He reports excellent protection from early and late blight and Anthracnose.

Michael Donaruma of the B. Donaruma farm, Keyport, New Jersey.

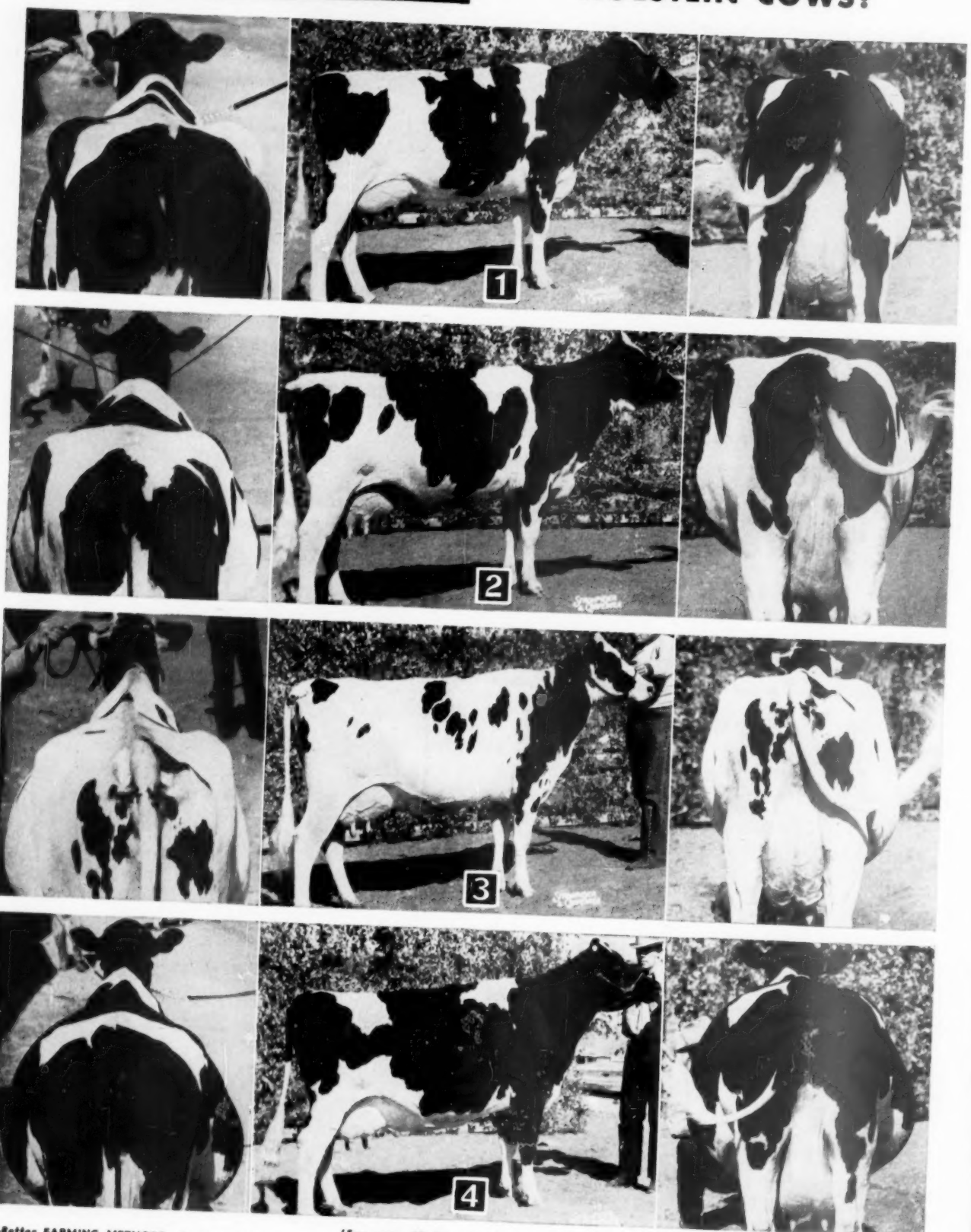
CALIFORNIA SPRAY-CHEMICAL CORP.
Home Office. Richmond, California

Maumee, Ohio	Portland, Ore.	Whittier, Calif.
Medina, N. Y.	Sacramento, Calif.	Caldwell, Idaho
Linden, N. J.	San Jose, Calif.	Maryland Heights, Mo.
Shreveport, La.	Fresno, Calif.	Oklahoma City, Okla.
Goldsboro, N. C.	Orlando, Fla.	Phoenix, Arizona

For full details on how ORTHOCIDE can help *you* make extra profits in *your* area, contact your nearest ORTHO Fieldman or write any office listed.

Judging PICTORIAL

How Would You Place These HOLSTEIN COWS?



(See page 38 for correct placing)

HERE IS THE TRULY

ONE SHOT

PENICILLIN TREATMENT

for animal diseases responding to penicillin!

BICILLIN® FORTIFIED

DIBENZYLETHYLENEDIAMINE DIPENICILLIN G • PROCAINE PENICILLIN G

- ***Provides fast action plus long action.***
- ***Gives immediate high blood levels with continuous protection for up to 6 days.***

- Think what this means to you in treatment of pneumonia, shipping fever, foot rot, navel ill and dozens of other diseases.
- Think what this means in time saved in handling animals!
- Think what this means in comparison to old-fashioned penicillins. In these, blood levels lasted only a few hours and required repeated injections.
- Think what this means in increased income!

This wonderful boon to every farmer raising stock of any kind is the result of intensive research and study in the Wyeth laboratories. It is the treatment farmers everywhere have wanted. Now it is yours to use—to save time and money—to add to the profit side of your farm operation.

AVAILABLE FROM YOUR DRUG STORE OR OTHER ANIMAL HEALTH PRODUCTS SUPPLIER

Supplied:

Bicillin Fortified 300

50 cc. vials of 150,000 units Bicillin and 150,000 units procaine penicillin per cc. The same formula is also supplied in a 10 cc. vial.

Bicillin Fortified 600

Boxes of 10 and 50 Tubex® cartridges, each containing 300,000 units Bicillin and 300,000 units procaine penicillin with individual needles attached.

Wyeth

PHILADELPHIA 2, PA.

When these FFA boys start to spray . . .

Weeds and Insects Take a Beating

By Milton Kohrs
FFA Advisor, Little River, Kans.

● ONE OF THE LARGEST community service activities of the Little River FFA Chapter is our weed and insect custom spraying program. We have two sprayers, owned and operated by the chapter members.

This activity had its beginning in the fall of 1948. Many crops needed spraying for weed and insect control. There was a need for a sprayer in our community. Our area needed some responsible individual or organization to secure a sprayer to do custom spraying.

Accordingly, our FFA chapter discussed this matter. A committee of three was appointed to investigate the possibility of purchasing a sprayer. They contacted farmers and business men on the soundness of the idea, and finally recommended the purchase of a sprayer.

Chapter Borrows Needed Funds

The chapter did not have enough cash to buy one but decided to collect scrap iron and paper. This was done and finally enough finances were obtained. A two-wheel trailer sprayer with a 20 ft. boom was purchased for $504. It was pulled by a pick-up or a tractor, but this was not satisfactory, since the tractor was too slow and knocked down too much of the feed.

Very little spraying was done that fall. But we had learned enough to know we needed a different mode of transporting our sprayer.

So early in the spring, the chapter purchased a 1947 model jeep for $750. The chapter lacked sufficient funds to pay the full amount so $400 was borrowed for 6 months at 6 percent interest from our local bank. The note was signed by all of the chapter officers and the FFA advisor.

Teach Weed Identification

Many problems beset the chapter in getting started, such as kinds of materials, rates, time of application, prices to charge, insurance of operator, and others. The state and county weed supervisors and local county agent were contacted and their recommendations were followed.

Lessons in weed control and identification of susceptible weeds were set-up in the vo-ag classes for study. Newspaper articles on weed and insect control were written to enlighten the community and to let the people know what the chapter planned to do.

A sprayer committee was set-up to take charge of this activity. They also had charge of purchasing spray materials and other things needed for the sprayer.

JEEP AND BOOM SPRAYER . . .
Chapter boys operate the spray rig.

November 4, 1953

Dear Mr. Schaller,

Please find enclosed the story of our spraying program in our Chapter. I feel that there is much that can be said and written as to such a program.

This program has proved a success in our community and school. It can be a large load on the shoulders of the ag instructor, but that has been relieved by forming a Sprayer's Association, and having experienced operators on hand. It takes patience until you have the boys so trained that they can be relied on and the farmers begin to gain confidence in them.

I didn't write much as to the sprayer that is now used for control of insects, but during the year it has been used to spray the alleys and buildings in our town. Besides this, 1,148 cedars, 1,098 shade, and 325 fruit trees, 200 pigs, 140 cattle, 500 sheep, and 50 horses have been sprayed with this machine.

We live in a farming community with a town population of 700. We have a diversified farming program, with cattle and wheat being the main practices.

Sincerely yours,

MILTON KOHRS,
Vo-Ag Instructor.

Train Local Operators

It was decided to train local chapter members to handle the machine. This was done by myself as vo-ag instructor. Each operator went to the field to actually run the machine. New operators, then, would learn the necessary operations in running the machine by going out with experienced operators.

Usually a junior or senior with ability was selected, but it soon became apparent that when they graduated, or became efficient in using this type of equipment, they would find employment with a farmer, or some other more steady work. So freshmen and sophomore boys were trained. At the present time, we have six boys who can be relied on to run the machine, with many others wanting to get the job.

It was decided to pay $1.50 an hour, actual spraying time. This has been satisfactory, for a boy really works hard to keep the sprayer running. A charge of 75 cents an acre plus the cost of the materials was made. This covered all maintenance expenses and the pay for the operator plus depreciation.

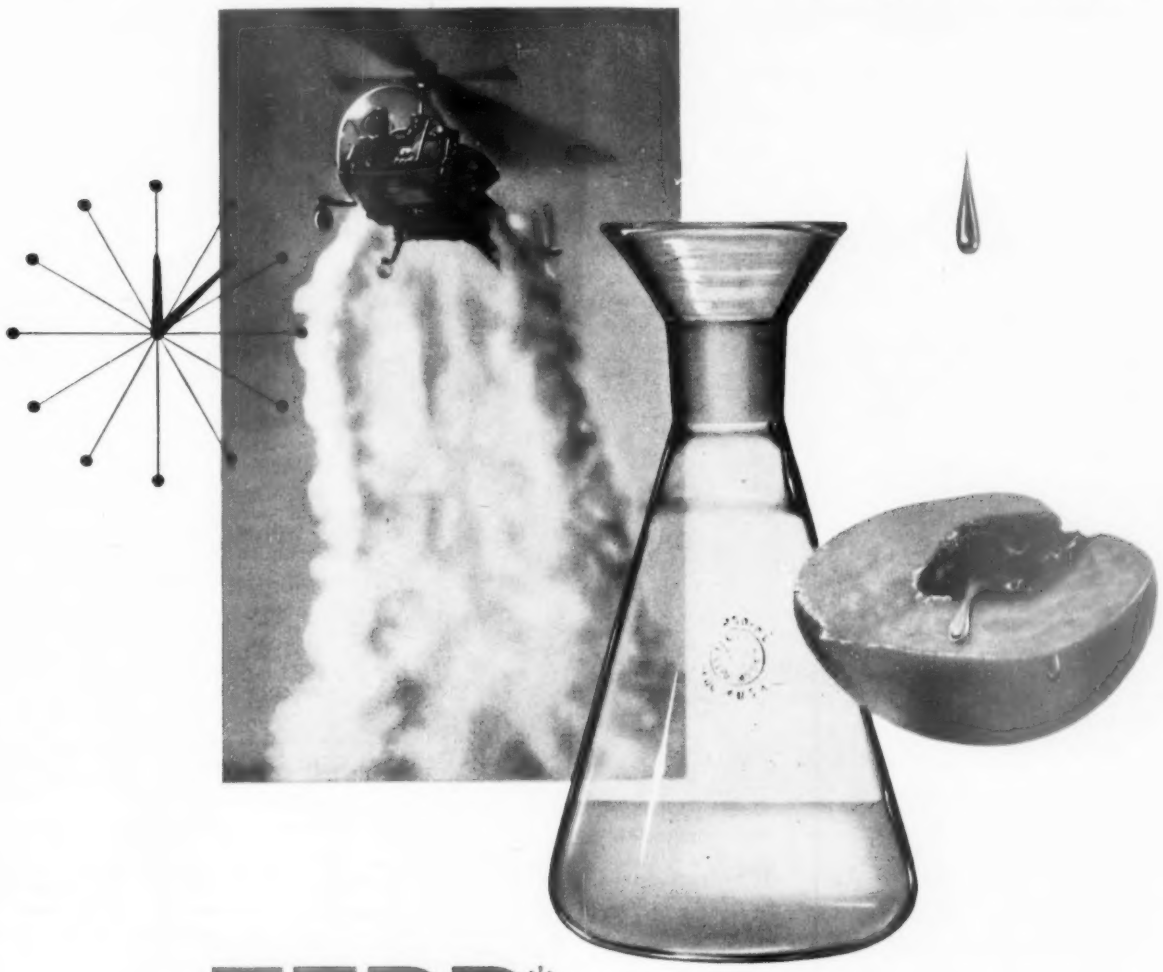
On straight spraying, an operator could spray from 6-8 acres an hour depending on the condition of the field, and the size of the boom used. We use both 20 and 30 foot booms.

Income Pays Back Loan

Over 1000 acres were sprayed the first year for weed and insect control, which grossed enough with other chapter funds to pay our $400 note at the end of the 6 month period.

The use of one sprayer for both weed and insect control brought up the problem of removing traces of 2-4D from the machine when spraying insects in susceptible crops. When

The Case of the Vanishing Poison



TEPP*

for pest-free, poison-free crops at lower cost

It's a murder story—with a happy ending for farmers! It's murder for red spider mites, aphids, flea beetles, thrips, leaf-hopper nymphs, cabbage caterpillers and many other pests.

But this insecticide leaves no poisonous residues on the crops or in the soil. It kills, then vanishes —within 48 hours!

TEPP is swift-acting, powerful. Fewer applications are needed and crop losses are reduced to a minimum. Crops arrive at markets or processing plants cleaner, assured of being top-graded.

Some users are saving from ⅓ to ½ of the cost of insecticides and their application by using TEPP exclusively.

TEPP is available (1) as a liquid concentrate, (2) as a stabilized dust, and (3) with other active ingredients.

Investigate the advantages of TEPP formulations. For the names of manufacturers of TEPP, write to Eastman Chemical Products, Inc., Chemicals Division, Kingsport, Tennessee.

*Tetraethyl Pyrophosphate is made from triethyl phosphate—an Eastman chemical. TEPP is not supplied by Eastman Chemical Products, Inc.

Eastman
CHEMICAL PRODUCTS, INC.
KINGSPORT, TENNESSEE
subsidiary of EASTMAN KODAK COMPANY

FOR THE LATEST
in
AGRICULTURAL
CHEMICALS
CONTACT
ASSOCIATED
ST. LOUIS, MO.

Chloro IPC
For effective pre-emergence control of grasses & weeds in cotton & soybeans.

2, 4-D & M-C-P
For selective control of weeds in small grains, pastures, etc.

Penta Defoliant & Desiccant
For preharvesting drying of leaves of cotton and soybeans.

Regular & Low Volatile Brush Killers
Formulations designed for year 'round brush control.

General Weed Killers
Fortified weed killer oils and dry mixtures for killing grasses and weeds.

Fly Sprays
Latest recommended spray for livestock, farm and household use.

Basic Manufacturers and Distributors of Agricultural Chemicals
For more information write or call
ASSOCIATED SALES & SUPPLY CHEMICALS DIVISION
5137 Southwest Ave.
St. Louis 10, Mo.
Phone Laclede 2200

WOOD PRESERVATIVES
WOOD TOX
TIMBER TOX
CONTAIN MONSANTO'S PENTACHLOROPHENOL
available in
Ready-to-Use
and
Concentrate Form
WOOD-TREATING Chemicals Co.
5137 Southwest Ave.
St. Louis 10, Mo.

we changed from spraying 2-4D, it took us at least five complete washings or cleanings with a counter-active solution, which should be left over night in the machine, to remove all traces and fumes of the 2-4D. Any trace of this solution would destroy a farmer's alfalfa, clover, or other crops that are affected by this material.

Purchase Additional Sprayer

The possibility of destroying crops when eradicating insects, plus the need for another sprayer, led to the purchase of a sprayer for this purpose.

A small sprayer was bought in 1951 for $187, but this was not large enough. So the small sprayer was traded in on a larger, 400 pound high pressure machine. This was run on the same basis as the large jeep sprayer.

THE SPRAY WORKED . . .
FFA boy checks on root kill.

Each fall, after the spraying season is over, the sprayer is checked, dissembled, cleaned, repaired, repainted, and stored. The same is done with the jeep, except repainting. All of this work is done by the members of the chapter in their shop classes.

Farmers Ask Questions

Over 4,760 acres have been sprayed with the jeep sprayer since we started spraying. It has been a source of income to the chapter. We have tried to be reasonable in our charges, and have done respraying when there was a doubt as to whether or not we had done a good job. We felt that this was a service to our community, and we wanted the people to have confidence in our work.

At the present time, we are answering many questions that farmers have on their sprayer problems. It seems that the community is depending upon us to keep up on new things, and to be able to eradicate insects or weeds that may strike our community.

Anyone desiring to set-up a program as we have, must consider the fact that it takes hard work and supervision, for spraying is a job that can result in good feelings or bad to your department and school. If a boy is injured while in your supervision, or a crop destroyed, you must be able to take this responsibility.

I would never start a program of this nature unless there is a need in your community and you are willing to follow through with it. We, as a chapter, are carrying insurance protecting us and the school. We feel that this is a must and should be done.

Our spraying program has brought the school and the chapter closer to the community, and set up a good feeling that is desirable in a vocational agricultural department. It has stimulated the boys to do a better job in farming and has put the FFA chapter on a higher level in our community.—*End.*

★

Book Reviews

PASTURE PRODUCTION AND MANAGEMENT, by R. H. Lush, published by The Blakiston Company, Inc., New York and Toronto. Price $3.75.

During the past few years, pasture improvement has received serious attention in the United States. It is fast becoming vital to a stable type of agriculture and a growing population.

This is the first textbook written by an animal husbandman with agronomic experience which emphasized pasture production and management as the most logical way of obtaining economical returns from farm livestock under the broad concept of grassland farming. A discussion of the utilization of important forages in the United States is presented. Major emphasis is placed on factors influencing establishment, fertilization, maintenance, management. and nutritive values.

Separate chapters treat the management and care of each class of livestock pastures, including poultry. There are also chapters on irrigation, utilization, soil improvement, and seed production.

Many illustrations are used throughout the book to show good pasture management. An extensive table on fertilizer recommendations for pastures is included. Several other tables add to the value of the book.

REPORTING AGRICULTURE, by William B. Ward, published by Comstock Publishing Associates, A Division of Cornell University Press, Ithaca, New York. Price $4.00.

All agricultural leaders—county agents, vo-ag teachers, soil conservationists, and extension personnel—are interested in good public relations for agriculture.

Here is a book that will not only help to achieve better public relations but also help individuals to learn more about the field of agricultural journalism and improve their

For more information from advertisers circle page numbers on ad index, page 56

reporting and writing abilities.

The book is not a text for the advanced student of journalism, but is written for the average agricultural worker. It is easy reading, has a number of examples of writing, pictures, and other visual aids.

Two items are covered in the book, both of vital concern. First is to find out what editors and radio and television program directors want and then to prepare the material in the way they want it. It describes opportunities open to agricultural leaders in the field of reporting agriculture and then presents principles and techniques of writing agricultural information for the major mediums of communication.

The book does not deal with the historical development of agricultural journalism, but concerns itself mainly with the present.

It contains 362 pages, and will be a welcome addition to any progressive agricultural leader who is interested in furthering the professional status of his field and his own ability to tell the agricultural story interestingly and effectively.

GRASSES AND GRASSLAND FARMING, by Hi W. Staten, Oklahoma A & M College, and published by The Devin-Adair Co., 23 E. 26th St., New York 10, N. Y. Price $5.00

This book shows you how to get more and better beef from your cattle, more milk in your pail, and more profits from your land. It is written by a man who knows his subject, and has for many years been closely associated with grassland farming.

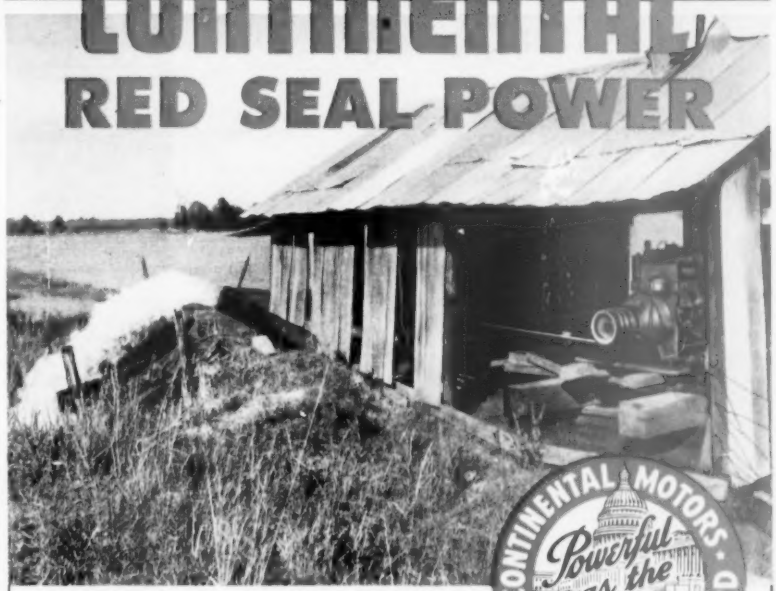
This is a practical discussion of the new role grass is playing in feeding livestock and revolutionizing farming in general. It shows how half the United States can produce year-round pastures, how the grazing season in the other half can be increased by two to four months, and how the farmer can start new grasses adapted to his soil and climate and realize more income.

The book contains over 300 pages, has a limited number of illustrations plus graphs and charts.

★

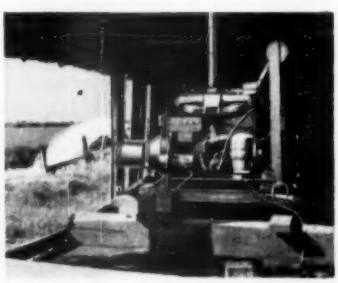
"This is silly dear! I've never even spoken to that new manicurist at Tony's shop!"

Cut Costs-Boost Profits WITH CONTINENTAL RED SEAL POWER



Continental R-602, driving 12-inch Layne pump, irrigates 500 acres of Zenith for Clegg Chaumont, Oberlin, La. Engine pumped continuously for nine weeks, at 1800 r.p.m., drawing from 100-foot well.

For "More Power to You"—more *dependable* power and less expensive—standardize on Red Seals for all your irrigation needs. When you put Continental's 52 years of specialized experience to work, up goes crop yield and down come costs. You pay less over the long pull for fuel, for lubrication, and for service, because every Red Seal model is engineered to its work. Moreover, it's backed from coast to coast with the parts and service facilities to keep it running at lowest cost, year after year after year.



1819 BROADWAY, NEW YORK 23, NEW YORK • 1252 OAKLEIGH DRIVE, EAST POINT (ATLANTA) GA. • 6218 CEDAR SPRINGS ROAD, DALLAS 9, TEXAS • 3817 S. SANTA FE AVE., LOS ANGELES 58, CALIF. • 910 S. BOSTON ST., ROOM 1008, TULSA, OKLA.

Continental Motors Corporation
MUSKEGON • MICHIGAN

For your guidance here is the . . .

Fertilizer Outlook for 1954

By Paul T. Truitt

President, American Plant Food Council

● FERTILIZER SUPPLIES during the crop year 1953-54 probably will reach another all-time new record.

The fertilizer industry is moving forward with an accelerated production program in keeping with goals established by the land-grant colleges, by the United States Department of Agriculture, and the defense agencies.

These goals call for 70 percent more nitrogen, 55 percent more phosphate, and 51 percent more potash by 1955 as compared with the 1951 crop year. These goals will be met, almost by 1955—most likely fully by 1956.

NITROGEN

Crop or Fertilizer Year	Estimated Capacity in Terms Nitrogen—Scheduled for Completion Tons	% Increase Over Previous Crop Year
1953—54	704,350	36.6
1954—55	202,750	7.7
After June 30, 1955	238,600	8.4

PHOSPHATE

Crop or Fertilizer Year	Estimated Capacity in Terms Phosphate—Scheduled for Completion Tons	% Increase Over Previous Crop Year
1953—54	424,400	16.0
1954—55	369,200	8.2
After June 30, 1955	(No estimate available)	

POTASH

Crop or Fertilizer Year	Estimated Capacity in Terms Potash—Scheduled for Completion Tons	% Increase over Previous Crop Year
1953—54	95,000	4.8
1954—55	(No estimate available)	
After June 30, 1955	(No estimate available)	

Set New Records

For 14 consecutive years, the fertilizer industry has established new all-time-high production records. From the point of view of production, and assuming farmers will cooperate in taking supplies when offered, the 1953-54 fertilizer outlook points to another new record, in total plant nutrients produced, total plant food nutrients used, and perhaps to a new high in total tonnage.

The farm price situation and the widespread and severe dry weather have acted to slow up fertilizer movement so far this fall—hence, the spring rush in '54 likely will be larger than ever before.

For the year immediately ahead, preliminary estimates, based on current information as to the completion of new facilities, and assuming export-import relations at about current levels, indicate the aggregate supply of the three major plant nutrients available for the 1953-54 season probably will exceed the record output of the 1952-53 season by around 13 percent.

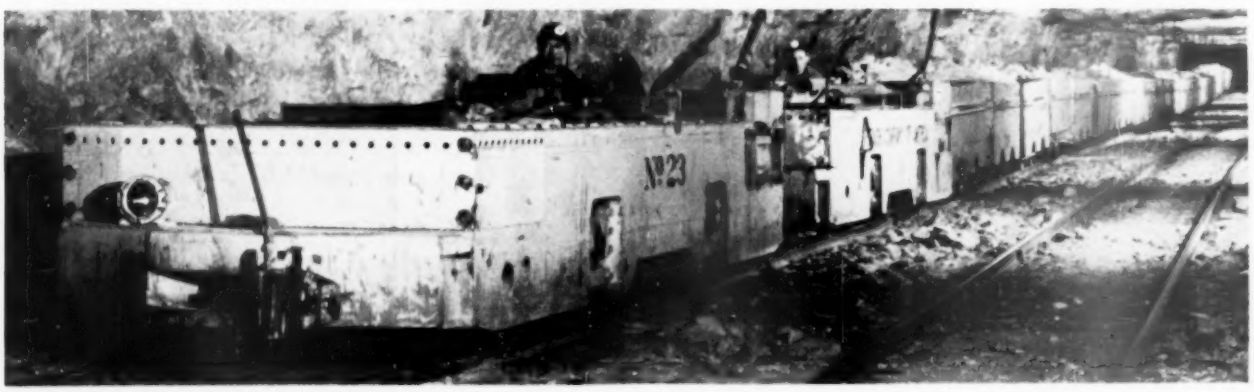
Nitrogen Should Be Plentiful

The fertilizer outlook for 1953-54, in terms of nitrogen, phosphate and potash, briefly is this:

Nitrogen. The supply of nitrogen available for fertilizer purposes in 1953-54 is currently estimated to slightly exceed two million tons. This is a preliminary estimate based on current information as to when a number of new synthetic ammonia plants are scheduled to be completed, and assumes about the same import-export balance as in 1952-53.

This represents an increase of approximately 11 percent above the reported

THE INDUSTRY IS MODERN . . .
New machines help speed production



AMMO-PHOS®

MODERN HIGH ANALYSIS PELLETIZED FERTILIZERS

BUILD BETTER SOIL..BOOST CROPS..CUT FARM COSTS

To furnish nitrogen and phosphorus in their most usable form, there's nothing like AMMONIUM PHOSPHATE fertilizers. Modern, high analysis pelletized AMMO-PHOS supplies quick-acting, non-leaching nitrogen, phosphate in its most available form, and potash proportioned to fit soil and crop requirements.

In addition, high analysis AMMO-PHOS contains up to 2½ times more plant nutrients (guaranteed analysis) than ordinary fertilizers. This contributes to considerable saving in storage, handling and application costs. And, AMMO-PHOS is pelletized . . . this helps make the phosphate available to plants over a longer period of time.

Mathieson specializes in the production of fertilizers of the highest quality adapted to local conditions. Further information and descriptive literature are available . . . write today.

MATHIESON CHEMICAL CORPORATION
Mathieson Agricultural Chemicals Division
Little Rock, Arkansas

MATHIESON

2116

NEW **Versen-OL®**
Iron Chelate
FOR ALKALINE, CALCAREOUS AND ACID SOILS

Cures IRON CHLOROSIS (Deficiency), Stimulates Growth, Increases Yield, Speeds Maturation

NEW LIFE FOR "IRON STARVED" PLANTS IN ANY SOIL

Now, for the first time, Versen-Ol Iron Chelate makes it both possible and practical to correct Iron Deficiency in soil of any pH. This new chelate compound (monosodium ferrous N-hydroxyethylethylene diamine triacetic acid, patents on which are pending) contains 19% of iron chelate calculated as NaFe EEDTA (4.29% Fe as Fe_2O_3). Readily absorbed by plant root systems, it is the only kind of iron we can prescribe for the prevention, correction and cure of chlorosis in plants growing in *alkaline, calcareous* or *acid* soils.

LOW IN COST — EASY TO USE

Chemically bound into moisture-controlling, soil-building vermiculite, Versen-Ol Iron Chelate is neither expensive to use nor hard to apply. Suggested dosage per tree or large shrub is from 12 to 24 ounces, or from 60 to 80 lbs. per acre for ground crop areas. It may be mixed and applied with other fertilizers. The product is dustless, uniformly granular and brownish in color. It is packed in handy 50 lb. bags. In alkaline and calcareous soils it works somewhat more slowly than in acid soils.

AVAILABLE FOR EXPERIMENT

Before making large scale applications of Versen-Ol Iron Chelate, agricultural authorities should be consulted. But for individual plants that are already considered hopelessly chlorotic, its immediate application can only result in benefit to the user. Samples on request.

CHELATED CHEMICALS FOR AGRICULTURE

KEY TO CHELATION

BERSWORTH CHEMICAL CO.
FRAMINGHAM, MASSACHUSETTS

KILL RATS WITH
warfarin
WISCONSIN ALUMNI RESEARCH FOUNDATION

• COLUMBIA SHEEP •
THE ALL-AMERICAN BREED
Select Columbia rams for superior lambs and wool.
1953 National Columbia Show and Sale
October 5-6—Sioux Falls, South Dakota
COLUMBIA SHEEP BREEDERS ASSOCIATION OF AMERICA
Alma Esplin, Secretary
P. O. Box 315 Logan, Utah

In February, don't miss the special grassland farming features, including "435 Farmers Own This Farm!"

1952-53 supply of 1,800,000 tons.

It is estimated that the supply of solid nitrogen materials (dry nitrogen) available for 1953-54 represents approximately 60 percent of the total supply and that solutions and liquid materials (wet nitrogen) 40 percent. For the previous year these percentages, based on trade deliveries, were approximately 62 percent for solutions and 38 percent for liquid materials.

New Plants to Open

In looking at the future in terms of the estimated potential capacity, including old and new operations, under the expansion program, by crop or fertilizer years, a report by the Department of Agriculture is included on page 34.

Phosphate. Preliminary estimates indicate that the 1953-54 available supply of phosphatic material may exceed the 2,410,000 tons available in 1952-53 by as much as 12 percent. This estimate is based on current information with regard to the completion dates of new plants and assuming that sulfuric acid will continue in free supply.

More Superphosphate Available

The new plant capacity scheduled for completion in 1953 involves a sizable tonnage of concentrated superphosphate, which should increase the supply of this material in relation to the total quantity of phosphate available in 1953-54.

In looking at the future in terms of the estimated potential capacity, including old and new operations, under the expansion program, by crop or fertilizer years, a report by the Department of Agriculture is included on page 34.

Push Potash Expansion

Potash. The goal established for the expansion of potash production facilities is ahead of schedule.

The 1953-54 supply of potash available for fertilizer purposes will reflect production from these new facilities as well as increases from the older operating units. Taking into consideration the possible increase in domestic production, and assuming approximately the same import-export balance as in 1952-53, it is estimated that the 1953-54 supply will exceed the 1,735,000 tons available in 1952-53 by as much as 15 percent.

In looking at the future in terms of the estimated potential capacity, including old and new operations, under the expansion program, by crop or fertilizer years, a report by the Department of Agriculture is included on page 34.

As we view the fertilizer year ahead, and the steady increase of production capacity, which is now assured, I would like for you to read into these figures the fertilizer industry's confidence in the judgment of our land-grant colleges, the

For more information from advertisers circle page numbers on ad index, page 56

Department of Agriculture, the defense agencies, and not least, the American farmer.

We do not believe our confidence is misplaced when we share the belief that the optimum benefits from the more efficient use of fertilizer and lime offers a real challenge to our educational forces, as well as the leadership in industries that serve farmers.

The program of the land-grant colleges and the United States Department of Agriculture calling for the more efficient use of fertilizer and lime parallels the accelerated fertilizer production program of the industry. Both programs will exercise far-reaching influence on the present and future of agriculture.

Be glad of life because it gives you the chance to love, and to work, and to play, and to look up at the stars.
—Henry Van Dyke

Farmers Can Increase Profits

Today, we hear a great deal about the battle farmers are waging against the so-called "price cost" squeeze. The problem would be more acute were it not for the vigilance of our land-grant colleges in using every effective method to lower the per unit cost of production.

Of course, fertilizer is not a cure-all for all the economic ills of agriculture. But all other ingredients in the successful farming formula being present, fertilizers are an indispensable tool—representing a return of from $3 to $15 per dollar invested.

The program for more efficient use of fertilizer and lime is an important part of educating farmers on all the practices that enter into sound land management. Proof of the need (if proof is required) is the fact that we have a long way to go, considering that the yields of most crops are about one-third or one-half their potentials.

Industry Ready to Cooperate

Let me emphasize that the more-efficient-use-of-fertilizer program is in keeping with the experiment station recommendations. Most states already are recommending about twice as much fertilizer as is being used. Not only have the higher rates been recommended, but the results have been proven in the field.

In this national program, the fertilizer industry stands ready to cooperate in every possible way. Properly, however, we look to the land-grant colleges for leadership, just as we look to the experiment stations and other recognized authorities, to guide us in producing the right kinds, and the right amounts, of fertilizers to do the job.—*End.*

"Can YOU Get Me Out of This Squeeze?"

This farmer is begging for help. He is caught in a vise between Rising Costs and Falling Prices, a vise that is squeezing his pocketbook flat. And if you're a Vo-Ag teacher or extension worker, it's your job to tell him what to do to help ease this squeeze.

His costs are soaring. For example, in 1945 he could raise an acre of corn for an average cost of $28.76. Today, the average cost for that same acre of corn is $48.54. And, as with everyone, his living expenses are climbing steadily.

But his income is falling. In 1951 he received, on an average, $1.70 for a bushel of corn. Today he gets only about a dollar and a half. This same general picture is true of his other crops.

Thus he's caught, coming and going. The "cost-price squeeze" cuts ever deeper into his profits. And authorities agree the worst may be yet to come.

The only way out for him is to get more bushels of corn from each acre. This means he must use modern fertilization practices. A carefully chosen grade of mixed fertilizer, plus the vital push of extra nitrogen in the form of "Mr. N" Ammonium Nitrate Fertilizer, will often double per-acre yields of corn. There's no better answer to the "cost-price" squeeze.

To help do your job better, why not ask for a FREE reprint of our poster, "Beat the Cost-Price Squeeze" . . . ready to tack up on your bulletin board? Write for yours today.

SPENCER CHEMICAL COMPANY

Executive and Sales Offices — Dwight Building, Kansas City, Mo.

Ag Leaders Conduct . . .

County Farm Tour

For Rural Ministers

Editor's Note:—This story was written in 1952. County Agent Vern Hendrickson is no longer in Buffalo county as agricultural agent.

However, the idea presented here is still excellent, and worthy of consideration by other ag leaders. Regardless of the lapse of time, we believe you will profit by learning of this unique idea.

● HOW MUCH DOES the average country editor or small town minister know about soil conservation practices?

Few of them are well informed on methods used in fighting soil erosion. Only a handful know the difference between a grassed waterway and a terrace.

While they may admire a farm with bands of strip crops undulating across a sloping field, they seldom know of the many actual benefits in increased yields, income, and better living that these farmers have experienced by adopting improved methods.

Over in Buffalo county, Wisconsin, agricultural leaders like County Agent Vern Hendrickson, Alma, and Hal Smith, Eau Claire, the district soil conservationist, along with the county agricultural committee, decided to take steps to remedy this situation. Out of several conferences came plans for a tour that would be both educational and interesting to the clergymen and newspapermen.

Number Attend Tour

Staged last summer, the tour attracted about 25 ministers, editors, and farmers on whose places the tour was centered.

"We wanted these people to see how Buffalo county farmers are winning their war against soil erosion," Hendrickson commented. "At the same time, we wanted to stress the fact that a great deal of work remains to be done to halt the losses caused by erosion.

"The average editor is very cooperative. He gladly runs our news stories about the soil conservation practices employed on local farms. However, we wanted him to see with his own eyes that erosion isn't a figment of the imagination."

One of the first stops was at the Riesch sisters' farm near Alma. Strip cropping of the fields dates back to 1885, long before SCS programs were in effect. The ministers and editors listened attentively as Ursula and Anna Riesch explained how the buffer strips keep rain from washing fertile soil into creeks.

Reverend Walter Schultheiss, Alma, Wis., chats with Farmer Alton Loewenhagen. The pastor was one of the ministers and rural editors of Buffalo county who toured the county to learn about soil conservation.

One of the ministers raised a questioning eyebrow when the cavalcade paused at the Mill Creek bridge.

"This bridge has been raised 18 feet in about 30 years," Hal Smith told the puzzled group. "Why? Simply because soil has been washed down from the hillsides.

"The silt has filled in around the bridge, forcing it to be raised from time to time. And why did the soil wash down? That's because land that should have remained in trees or been farmed in strips was cleared off and planted to row crops. That invited erosion, of course."

Minister Is Impressed

When the little procession came to a halt at the Alton Loewenhagen farm, Reverend Walter Schultheiss, Alma, stepped forward to chat with Loewenhagen. The latter grinned when the pastor complimented him on the fine appearance of his farm.

"This farm once sold for $25,000," Alton commented. "Then the owner lost it and it was operated by a bank through tenant farmers. I bought it in 1945 for only $4,500.

"That first year I had 10 cows. One of them died and I guess it starved to death. This year, however, I have feed enough for 30 cows."

Pressed for an explanation, Loewenhagen waved an arm at a herd of cows grazing belly-deep in lush pasture.

"It wasn't too difficult," he told the ministers and editors. "It took plenty of lime and fertilizer along with adoption of soil conservation practices. But if I could do it, other farmers also could improve their farms. It's simply a matter of taking advantage of the experience of others."

Leaders Work Hard

It took considerable effort on the part of Hendrickson and Smith to make arrangements for the tour. Both men, however, feel the results were well worth the trouble.

"This story of liming, fertilizing, terracing and pasture renovation has really made an impression on the clergymen and newsmen," Hendrickson commented.

"I believe the editors will occasionally write an editorial on the subject. The ministers may be encouraged to prepare sermons linking soil conservation with prosperous rural congregations. They could see the close connection, I believe."

—*Harold Severson, Kenyon, Minn.*

★

Holstein Cow Placing

Correct Placing 2-3-1-4

The class of Holstein cows is placed 2, 3, 1, and 4.

Number 2 is placed over number 3 because of her greater size and scale. She shows greater spring of rib, greater depth of heart and barrel, giving her greater body capacity. Number 2 carries back with more width through the thurls and pins and is smoother at the tail head. Number 3 must be given the advantage in balance of udder. She is also cleaner in the head and neck and is sharper at the withers.

Number 3 is placed over number 1 mainly on balance and veining of udder. Her fore udder extends farther forward and her udder is longer and more level on the floor and shows more veining. She shows more style about the head and neck. On the other hand, number 1 must be credited with the best rump in the class, being more level from hooks to pins and with greater width through the thurls and pins than number 3.

Number 1 and number 4 are somewhat similar in body type, with 1 placed over 4 because of her greater spring of forerib, her fullness through the crops, greater width of rump, a wider rear attachment of udder with more uniform balance in the rear quarters. It must be pointed out that 4 is nicely balanced blending smoother from the neck into the shoulder with a little greater body capacity and the fore udder blending a little more smoothly into the body wall.

HERE ARE THE ANSWERS

to your questions about steel farm buildings

● This booklet, "Steel Buildings for Practical Farmers," explains the numerous advantages of factory-made steel buildings and illustrates how they can be used for improved farm operations.

There are many points to consider when investing in a farm building. Is it properly designed for farm use? Is it fire-resistant? Will it save time and labor? Is maintenance low? Will it add to the beauty and value of the farm? This interesting, informative booklet answers these questions and many more.

We are very pleased to offer you this booklet free of charge. You can obtain a copy by simply filling in and mailing the coupon below.

County Agricultural Agents and Agriculture Instructors may obtain additional copies of this booklet for local distribution, or reference use. Fill in the coupon, specifying the number of copies desired.

United States Steel Corporation produces high-quality U·S·S Galvanized Sheets and Structural Steel which our customers manufacture into durable farm buildings.

SEND THIS COUPON FOR YOUR FREE BOOKLET

USS

4-278

Agricultural Extension Section
United States Steel Corporation
Room 4226, 525 William Penn Place
Pittsburgh 30, Pa.

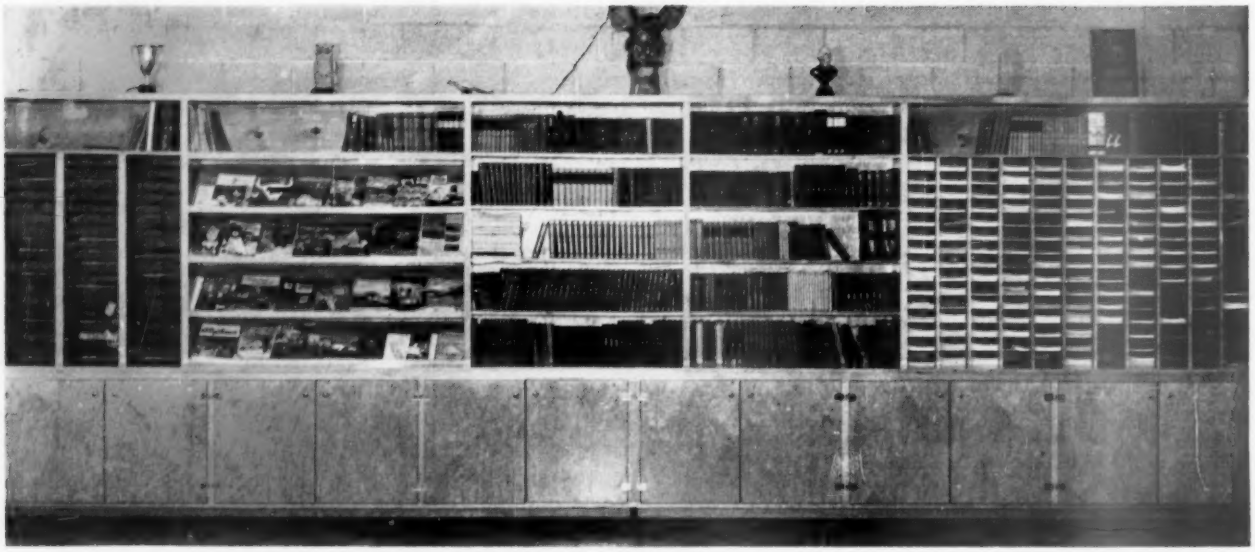
Please send me, free of charge, ... copies of "Steel Buildings for Practical Farmers."

Name .....

Address ..... Town .....

County ..... State .....

UNITED STATES STEEL



UNIT WALL CABINET . . .
It provides for every classroom need.

Practical Tips on Building . . .

Vo-Ag Classroom Cabinets

By Joe Duck
University of Missouri

● THE PHOTOGRAPHS on this page and the following page represent recent types of cabinets constructed in this state during the last few years. They may suggest ideas to vo-ag teachers and school administrators who are planning new classrooms or alterations and additions to existing rooms.

They are not offered as something to be copied because the needs of vo-ag departments are not the same. Blue prints and drawings are not available for distribution. The cabinets on this page may be modified to fit the needs of the department.

Types of Cabinets Needed

In selecting and designing cabinets for the classroom the administration and the teacher should consider the following factors: The size and shape of the classroom; number of students enrolled; amount of money available; type and amount of laboratory work to be done; kind and amount of teaching aids to be stored; accessability to teacher and students; amount of other storage space available; and aesthetic effect.

The minimum requirements for a vocational agriculture classroom cabinet should include sections for books, bulletins, farm magazines, and other printed materials. In addition to the minimum requirements most teachers desire a place to store and file students' notebooks and supervised farming record books, laboratory equipment, charts, and other teaching aids. All of these needs can be met in a single cabinet, which may be called a *unit* cabinet.

Some teachers use a teaching stand, which has a sloping top for teaching plans or other notes. It also has one or two shelves for the storage of teaching aids, supplies, and other materials. The teacher who makes use of the teaching stand usually has a standard office desk in the office that adjoins the classroom.

MAGAZINE DISPLAY CABINET . . .
Map storage area increases value

A few teachers have projection tables and others have a combination projection table and projection-equipment storage cabinet. The combination table and storage cabinet is on rollers and is light in weight so that it can be moved easily from one place to another. It should be from four to five feet in height and should be designed to hold a motion picture projector, a tri-purpose 35 mm. projector, one or two motion picture films, and filmstrips unless provisions are planned elsewhere for some of these things.

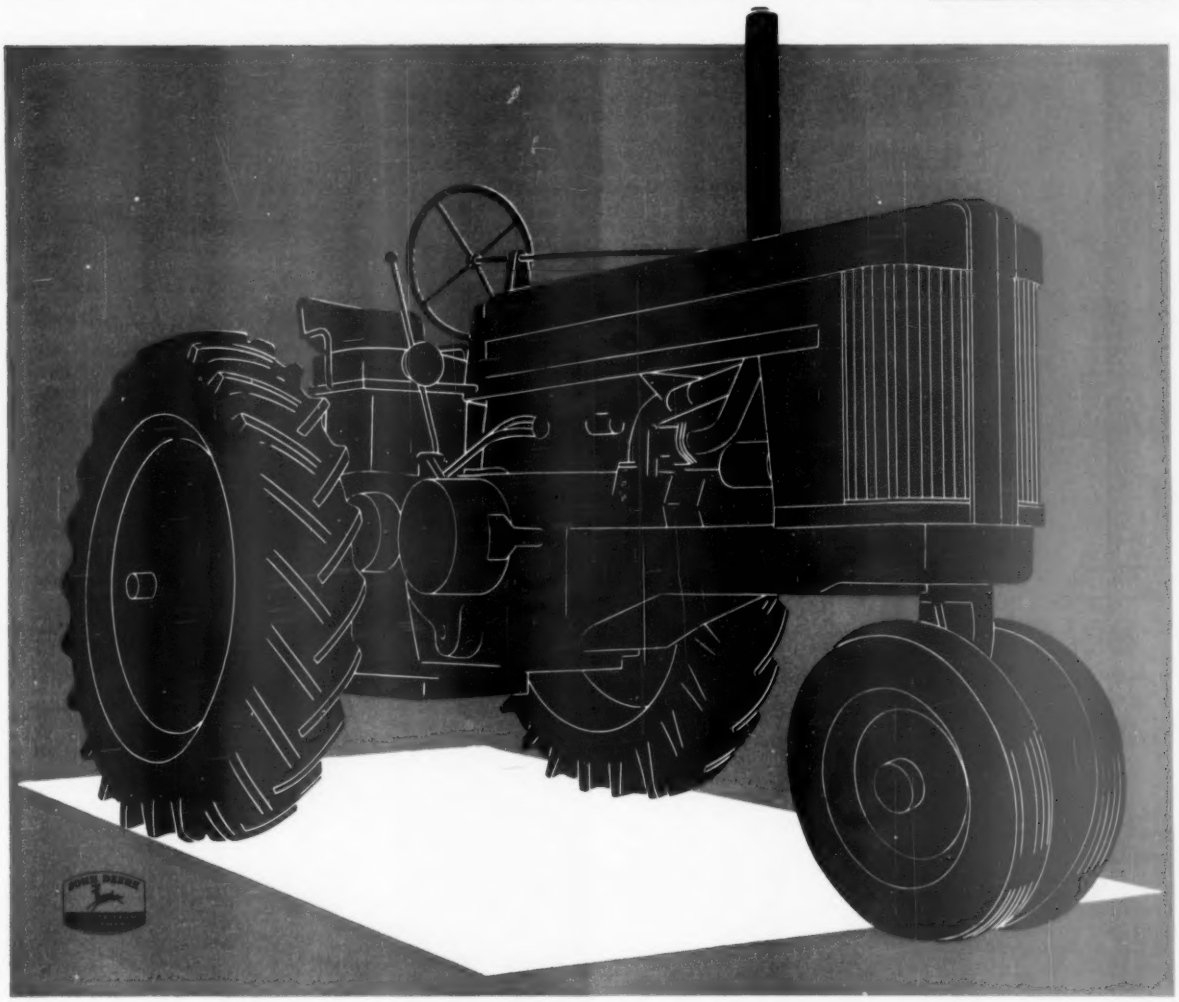
Many departments have a storage room adjoining the classroom for the storage of laboratory equipment, projection equipment, and other teaching aids and supplies. These departments do not need as much storage space in the classrooms as do departments that have no such storage rooms.

What Size Cabinets?

The teacher who is planning classroom cabinets should become familiar with the recommendations of the supervisory and teacher training staffs in his state. He may also desire to find out about developments in other states.

The unit cabinet is superior in some respects and more attractive than un-

You can tell a Thoroughbred by Its Lines



That's right. The sleek lines of a thoroughbred are always recognizable to the expert. And with quick appraisal, the expert can accurately predict the performance promised in those lines.

Of course, when it comes to farm equipment, the farmer is the expert.

That's why farmers the country over are quick to recognize John Deere equipment as the thoroughbreds of the field—trim, efficient, and modern equipment built to set the pace in modern farming methods.

That's why, in the wheat fields of the West, the corn belt of the Midwest, the cotton and tobacco fields of the South—from coast to coast—*wherever things grow, there is a growing demand* for quality farm equipment, equipment bearing the familiar trademark of John Deere.

JOHN DEERE
MOLINE, ILLINOIS

related cabinets constructed of different materials and having different heights.

As a rule, cabinets are not glass covered. Proponents of the non-covered cabinets believe that they are more accessible to both the teacher and the student than are the covered types.

Some teachers favor glass-covered cabinets for protection from dust. This allows the teacher and the student to see what is on the inside without opening the doors. The dust problem is much worse in some states than in others.

Build Cabinet in Sections

The teacher who plans a unit cabinet should consider constructing it in sections, either two or three, depending upon the length. This will permit removal to another room if there is a possibility that the cabinet may be moved in the future.

PROJECTION CABINET . . .
Rollers make it easy to move.

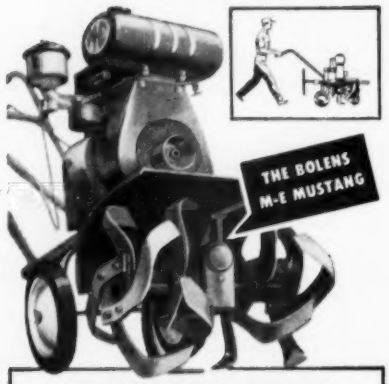
The size or dimensions of cabinets is always a problem to the planner. The length of the unit should be determined by the needs of the department and by the space available. As a rule a cabinet should not be higher than the majority of the students can reach, which is about 80 to 84 inches.

The shelves of the magazine section should be wide enough for the largest magazine. This is about 15 inches. Some of the shelves may be narrower than this since only a few magazines will be 15 inches long.

The section for students' notebooks and supervised farming record books should be constructed so that each student has a compartment large enough for these

Do 5 gardening jobs in 1 operation

PLOW • DISC • HARROW
AERATE • CULTIVATE



BOLENS M-E ROTARY TILLERS
do the work...You have the fun

Tines Guaranteed against Breakage

Till without toil! Completely prepare your garden for planting in one operation...then cultivate, weed and mulch. Plenty of power, and what a performer... turns on a dime. Budget priced for you to enjoy better crops and better soil.

Available with a complete selection of work saving year 'round plug-in attachments

MAIL COUPON NOW FOR LITERATURE ON BOLENS OUTDOOR POWER EQUIPMENT

BOLENS PRODUCTS DIVISION
Food Machinery and Chemical Corporation
291-1 So. Park St., Port Washington, Wisconsin

I am interested in:

☐ TILLERS ☐ MOWERS
☐ TRACTORS ☐ CHAIN SAWS

Name_____

Address_____

City_____ Zone____ State_____

DO YOU HAVE A CHOICE?

Or Are You Growing One-Way Calves?

American Brahman Crossbreds are Two-Way Cattle. They wean in milk-fat slaughter flesh. This gives you a Two-Way choice on the market.

If the slaughter calf market is up you can cash in for the bonus. If feeder demand is strong you have weight and thriftiness to offer.

In either case you will go to market with a 50 lb.-per-calf heavier load with American Brahman crossbreds.

For detailed performance reports **FREE** Write Dept. C

ABBA AMERICAN BRAHMAN BREEDERS ASSOCIATION
1208 LOUISIANA • HOUSTON 2, TEXAS

Thompson Chemicals

PRESENTS A SPECTACULAR ADVANCE IN BROAD SPECTRUM

BRUSH KILLERS

with extra creep for extra kill

Write for latest Research station papers

WEED & BRUSH KILLERS
STOCK SPRAYS
DEFOLIANTS
HORMONES

Thompson CHEMICALS CORPORATION
ST. LOUIS 3, MO. • LOS ANGELES 27, CALIF.

If you want help in your work, turn to page 55 and use the Helpful Booklet section of Better Farming Methods. All booklets are free of charge.

For more information from advertisers circle page numbers on ad index, page 56

two books, and no larger. Larger compartments encourage students to use them for other purposes.

Bulletin Sizes Vary

If the "pigeon hole" method of filing bulletins is used, the holes should be made for the most common size of bulletin, which is 6 by 9 inches. This means that the "pigeon holes" should be 6 or 7 inches wide, 9 inches in depth, and about 3 inches in height, inside measurements. If they are made with a height greater than this, space is wasted.

Some teachers construct the bulletin section so that the dividers between pigeon holes may be removed when more space is needed. In some cabinets inch material is used for perpendicular dividers, but in others the inch material runs horizontally. Plywood, pressed wood, and metal are commonly used as dividers in the other direction.

Most book shelves are 8 inches wide and are placed 10 inches apart, but some shelves are made 10 inches wide, or 12 inches in a few cases. It may be practical in building a unit cabinet to have one or two shelves wide enough for the widest books and far enough apart for the longest books. Such a cabinet requires more careful planning and more time in construction, but it may give more total available space.

Hinge Doors in Pairs

The bottom part of the unit cabinet may *not* be needed in schools that have storage rooms adjoining the classrooms. If the bottom part is included in the plan, the doors should be hinged in pairs so that two doors will open in opposite directions, exposing a large opening for the placing of large or long pieces of equipment on the shelves.

When a unit cabinet is built it is desirable from the standpoint of appearance to have the various sections flush with one another in front. This means that the back sides will not be flush and that careful planning must be done on this part of the cabinet.

If the bottom part of the cabinet is not included in the plan a 10 or 12 inch board should be placed at the bottom of each section so that the students will not have to stoop to the floor for articles.

In planning classroom cabinets first decide what your needs are. Second, provide for those needs within the limitations presented by the room and the amount of money available. Third, make the cabinets as a unit if feasible.—*End.*

★

She Always Wins . . .

"Did you give your wife that little lecture on economy that you mentioned to me?"

"Yes."

"Any results?"

"Yeah—I've got to give up smoking."

NEW 2-FISTED
VARIABLE SPEED
16" BAND SAW
CUTS BOTH WOOD and METAL
* Dial any speed you want from 50 to 4500 SFM

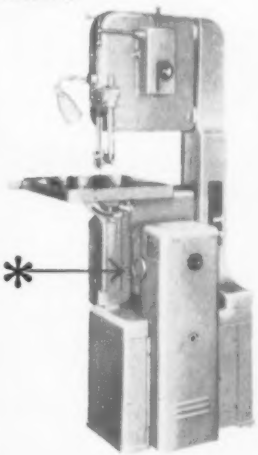
Why buy a single purpose band saw, when for just a little more, you can get a Walker-Turner *Light-Heavyweight* that cuts wood *and metal?* Priced much lower than any comparable saw it has more use-ability, more weight, more plus value† throughout.

Your factory-trained Walker-Turner distributor will give you all the information on this new multi-use variable speed saw or the new single speed model for woodworking only. Ask your distributor or mail coupon below.

WALKER-TURNER
KEARNEY AND TRECKER CORPORATION
PLAINFIELD, N. J.

DRILL PRESSES—Hand and Power Feed • Radial Drills • Wood and Metal Cutting BAND SAWS • TILTING ARBOR SAWS • RADIAL SAWS • JIG SAWS • LATHES • SPINDLE SHAPERS • JOINTERS BELT AND DISC SURFACERS • FLEXIBLE SHAFT MACHINES

Costs little more than a single purpose machine



Another Walker-Turner Light-Heavyweight

Use this space to send for full details and specifications. Walker-Turner Division, Kearney & Trecker Corp., Dept. BF-1, Plainfield, N. J.

Name .....

Address .....

City ..... State .....

† Other plus values: Ball bearing construction; improved guides adjustable to all blade widths; Carter Jiffy tires for longer tire life, smoother operation.

Switch to North Dakota Certified Seed!
POTATOES

Noted for VIGOR, FREEDOM from DISEASE, HIGH YIELD

Dependable Producers year after year. Order now from your Dealer, Grower or Shipper.

State Seed Department

College Station Fargo, North Dakota

Two articles in February, "Organize a County Grassland Program" and "Use a Pasture Calendar" will be of particular interest to all ag leaders.

Look for them in the special Grassland Farming Section of the February issue of Better Farming Methods.

You Need Sound Planning When . .

FFA Boys Take A Trip

By Harold Donovan
Vo-Ag Teacher
Montrose, Pa.

● WHAT COULD BE easier and more interesting than taking a trip to the world's largest agricultural experiment station?

Newspaper accounts of the work in cross breeding of cattle had made us especially curious about the USDA Research Center at Beltsville, Md.

Other ag men had praised the place enthusiastically. In fact, one teacher has been taking his pupils on that trip every year for 20 years. Beltsville must have something, we thought.

So when our boys came back from their summer vacation in 1952 we broached the subject of a four-day field trip. Were they interested? They were. So, we began to make our plans.

For the benefit of those who are planning similar trips, here is how we organized it. At the time we would have liked this kind of help.

Freshmen Did Not Go

School commenced the day after Labor Day. We had a kitty of $400 in our local FFA treasury. The boys were willing to use the money towards the trip. They excluded only those ag pupils who had not worked to accumulate the funds, i.e., the freshmen.

Next we received written permission from their parents.

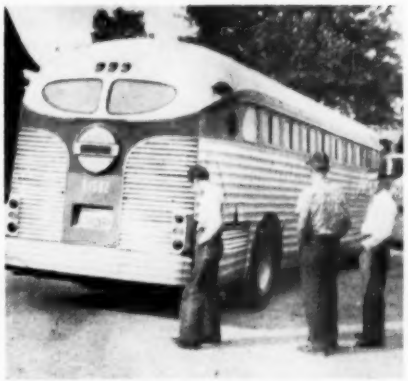
Before we knew it we had 25 lined up for the four-day trip. We planned to take it September 29-October 2. Not much time for making arrangements.

We telephoned Beltsville to see if they could accommodate us on those days. Once down there we knew we would get lost without a guide.

Roy Jones, consultant, International Programs, advised us that they would be happy to arrange guided tours. He suggested that we write down precisely what we were most anxious to cover while there. We followed his advice with a letter expressing our chief interests.

What about transportation, food, and lodging?

At the outset the boys had decided to save some money and use one of our new



The FFA Chapter chartered a bus to take them to and from Beltsville.

school buses. A week before the trip the bus driver informed us that the trip was out! He had since learned it would cost him $200 for a special license to drive the group around Washington, D.C.

Then we contacted three of the regular bus lines and chartered the cheapest. That meant we would be taken all around Beltsville during the day and directly to and from our hotel each day. Service!

We figured the cost of the trip to be approximately $750. The FFA footed all bills except meals for the boys.

Hotel Rates Reasonable

Next we scouted around for the most inexpensive hotel in Washington. It happens to be the Plaza hotel which caters to school groups such as ours throughout the school year.

We telephoned the manager, David T. Miles, and he confirmed our reservations in writing giving us an estimate of the cost for each boy. For the full American Plan (this covers lodging, two meals, all tax and tips, four students to a room) each boy had to pay $5.40. Broken up, the bill reads as follows: Lodging $2.55, breakfast $1.10, dinner $1.70.

Before the trip we wrote to the manager stating the anticipated hour of arrival at the hotel, the first meal desired there, all other meals we expected to have at the hotel, and our expected hour of departure.

We included a rooming list, grouping the students as they wanted to room together and mentioned the names of the chaperons, too.

Follow Planned Tour

So much for the hotel arrangements.

We planned our itinerary for Roy Jones. Most of our pupils are dairy farmers and naturally we placed first emphasis there.

On the first day Jones arranged that we cover plant breeding, spray control of weeds, forage and cereal crops adapted to Pennsylvania, and fruit and vegetable gardening.

Visit Dairy Projects

On the second day we reported to the Bureau of Dairy Industry and took in the following topics: Breeding, feeding, pastures and forage harvesting, and insects and insecticides. We took a break for lunch at the log lodge daily.

On the afternoon of the last day we went to the Bureau of Animal Industry and saw the swine, poultry, beef, and sheep projects.

From the standpoint of learning more about agricultural topics the trip was excellent. Some of the parents told me afterwards that it was their boy's first time to spend a night away from home!

Boys Gain Experience

The travel and experiences were worthwhile in themselves to say nothing of the information gleaned at Beltsville.

A hired hand living with friends of ours was never known to utter two words before the trip. After he returned it was hard to make him stop talking. From remarks like that we judge the boys enjoyed themselves and learned a few facts painlessly.—*End.*

And, like all boys, they played around the corridors and in their hotel rooms at night, long after they should have been in bed.

General Clay

answers the questions everybody is asking about

RADIO FREE EUROPE

General Lucius D. Clay, former U. S. Military Governor in Germany, and leader of the Berlin Airlift, was first Chairman of the Crusade for Freedom.

General Lucius D. Clay answers nine vital questions about an organization which needs your dollars and your support—Radio Free Europe.

RFE is important to *you* and to millions of freedom-loving people behind the Iron Curtain, *who are our first line of defense against Soviet aggression.* General Clay tells why:

Q. What is "Radio Free Europe"?

A. Actually, it is 6 stations in Western Europe broadcasting TRUTH through the "Iron Curtain" to the people of 6 captive countries in their own tongues and in the voices of their own known and trusted exiles.

Q. What is the difference between Radio Free Europe and the Voice of America?

A. The Voice of America is run and paid for by the Government. Radio Free Europe is operated as an independent American enterprise by a committee of private citizens. It is *people* talking to *people*—Poles telling the truth to Poles, Czechs and Slovaks telling the truth to Czechs and Slovaks, etc. It is not bound by diplomatic limitations.

The Voice of America broadcasts to many countries and can only devote a limited amount of time each day to any one country. But Radio Free Europe's "Voice of Free Czechoslovakia", for example, broadcasts about 20 hours each day to Czechoslovakia alone.

Q. Who supports Radio Free Europe?

A. Millions of American citizens like yourself, through voluntary contributions of millions of dollars! More than 1,000 carefully screened people man the stations. The management is American, but the staff is largely composed of editors, reporters, teachers, clergymen and entertainers who have come from behind the Iron Curtain.

Q. What countries does Radio Free Europe reach?

A. Czechoslovakia, Poland, Romania, Bulgaria, Hungary, and Albania with a total of 70,000,000 population.

Q. How does Radio Free Europe get its news?

A. Radio Free Europe monitors most Communist broadcasts. Every program is analyzed by nationals of the captive countries who *know the truth.* Voluminous information from many sources is compiled and evaluated constantly by exiled experts. New exiles bring out new truth daily—and they bring it to RFE.

Q. Are more transmitters needed?

A. Yes. More transmitters and still more transmitters are needed now to let truth speak louder than ever to those captive people. Transmitters in new locations are needed too—as added insurance that this "Voice of Freedom" will never be stilled. Each new transmitter insures a new listening position on a captive radio dial.

Q. How much is needed now?

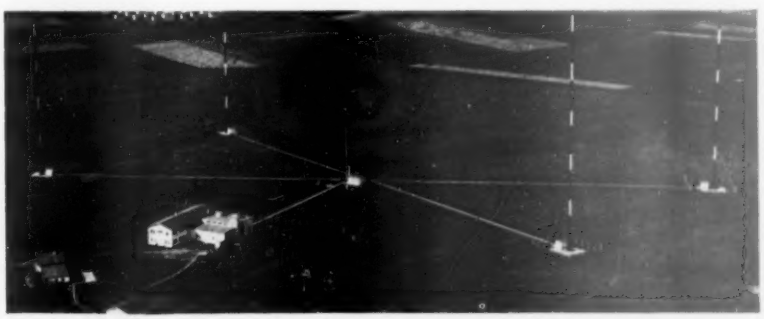
A. At least $10,000,000. But, as important as the money, the WIDEST POSSIBLE PARTICIPATION—to communicate the truest possible feeling of FRIENDSHIP FROM MILLIONS OF AMERICAN PEOPLE IN ALL WALKS OF LIFE.

Q. How much should one individual give?

A. All he can . . . A "truth dollar" is suggested.

Q. Why is Radio Free Europe so important to me?

A. Because it is devoted to the single most important job in the world—to help keep World War III from happening. If 70,000,000 people in the six Iron Curtain countries continue to resist Soviet tyranny, the Kremlin is kept off balance in one of the most strategically sensitive areas in the world.



This transmitter at Holzkirchen, Germany, is the largest of Radio Free Europe's 21 outlets. It has brought protests from angry Communists in Czechoslovakia where it is beamed 20 hours a day.

RADIO FREE EUROPE *supported by* **CRUSADE FOR FREEDOM**

NVATA Photo Report

Photos by Better Farming Methods

● THE 1953 NVATA convention was a big success!
Nearly 300 vo-ag teachers from 45

1. Ed K. Fife, Springfield, Mass., and H. E. Throckmorton, Milton, W. Va., alternate and vice-president respectively of Region VI.

2. The executive committee for 1954, (l-r) Max Lampo, Neosho, Mo., past-president; Robert Bishop, Powell, Wyo., vice-president, Region I; H. E. Throckmorton, Milton, W. Va., vice-president, Region VI; Robert Howey, Sycamore, Ill., vice-president, Region IV; S. F. Peterson, Ayden, N. C., vice-president, Region V; Joe Cuffman, Midland, Tex., vice-president, Region II; Leon M. Johnson, Bemidji, Minn., vice-president, Region III; Lionel Cross, San Jose, Calif., executive secretary; Jess Smith, Lake Geneva, Wis., treasurer; and Robert Wall, Luray, Va., president.

3. Robert Wall, NVATA president, was caught listening to a conversation.

4. Neldon Taylor, right, retiring vice-president from Region I, chats with the new vice-president, Robert Bishop.

5. All eyes focus on Don Mullen, Jefferson, Wis., as he tells an Irish joke. Seated, (l-r) Jess Smith, Wisconsin; E. L. Olson, North Dakota; J. B. Baird, North Carolina; Mullen; W. D. Rice, North Dakota; and James Hamilton, Iowa. Standing, (l-r) Louis Baer, Iowa; J. T. Wall, Nebraska; and L. J. De Boer, South Dakota.

6. Don Kabler, Corvallis, Ore., is the new alternate vice-president for Region I.

7. Much of the work at the NVATA convention was done in small regional groups, such as this group meeting of delegates from Region VI.

8. Wally Butz, Pennsylvania, kindly holds the faucet for Alan Brown, Iowa. Standing at the left are Wenrick Stuckay, Ohio, and Randal Lyday, North Carolina.

9. Many Negro vo-ag teachers have joined the NVATA. In this group, (l-r) F. T. McQueen, Alabama; Richard Maton, Alabama; Johnnie Hill, South Carolina; John Lawton, Georgia; J. B. Baird, North Carolina; and pointing out some of the advantages of the National organization, S. F. Peterson, vice-president, Region V.

10. Art Twardock, Illinois, left, gets ready to pin an NVATA button on LaVell Parsons, California. Others, (l-r) John Short, New Mexico; M. C. Roche, Florida; W. C. Ulmer, Louisiana; and Joe Metzger, Indiana.

BUYING CAREFULLY?

then consider New Idea

This is the NEW IDEA 90 bushel spreader. Biggest, most imitated ground-drive spreader on the market. Flared sideboards hold big loads in place ... make loading easier. Forward position of wide upper cylinder removes upper part of load first, prevents choking. Control levers within easy reach from tractor seat. Farmers have purchased over 100,000 of these popular-sized NEW IDEA spreaders.

The NEW IDEA 65 bushel ground-drive spreader is easily pulled by small-size tractors. Has same outstanding shredding and wide, even spreading features of larger NEW IDEA models. Same trussed steel framework, self-aligning bearings, easy on-and-off hitch with adjustable foot suport. 100 U-shaped cylinder teeth of high carbon steel are staggered for more thorough shredding.

Here is the big new NEW IDEA PTO spreader for 120 bushel loads. A big, powerful spreader for frequent, big spreading jobs. Bed and sides made of select pine with steel flares. Distributor paddles individually removable. PTO drive supported in center by swivel bearing. Adjustable foot support folds into hitch. Four different rates of feed for each forward gear of your tractor.

For complete information see your community New Idea dealer, or check and mail this coupon.

NEW IDEA FARM EQUIPMENT COMPANY AVCO Manufacturing Corporation

Dept. 1021, Coldwater, Ohio

Name_____

Address_____

County_____ State_____

- ☐ No. 15 PTO Spreader (120 bu.)
- ☐ No. 12-A Spreader (90 bu.)
- ☐ No. 14-A Spreader (65 bu.)
- ☐ No. 10-A 4-wheel Spreader (75 bu.)
- ☐ Hydraulic Loaders
- ☐ Need for schoolwork
- ☐ I farm _____ acres

Why Pay for Rain That Fails to Fall?

Why pay for rain that fails to fall when most needed?

Why endure a crop loss caused by draught which frequently amounts—in one season—to more than the cost of an irrigation system that would prevent it?

With a Hale Irrigation Pumping Unit, a farmer can have rain when he wants it, for the sure protection of his crops . . . for increased profits through larger quantity and better quality. Units range from 1250 GPM at 100 lbs. pressure to 15 GPM at 40 lbs.

The Hale Type CFIR pictured above irrigating a celery crop (800 GPM at 100 lbs. pressure) is typical of the rugged efficient Hale Units.

Write today for information on Hale Irriagtion Pumping Units . . . State size of area to be irrigated and source of water available.

HALE FIRE PUMP CO. Conshohocken, Pa.

The Farmer Who BEATS the Weather....

with a HALE Irrigation Pumping Unit

Guarantees Himself Bigger Profits and Assured Crops

Write for detailed information. State No. of Acres and Source of Water Available.

IRRIGATION DIVISION

HALE FIRE Pump Company Conshohocken, Pa.

M. D. Mobley, seated center, executive secretary, AVA, chats with ag teachers, (l-r) Arthur Meaders, Illinois; Edward J. O'Connell, Minnesota; and Max Lampo, Missouri.

states registered at convention headquarters, Conrad Hilton Hotel, Chicago. Dates of the convention were November 29-December 3.

Robert Wall, vo-ag teacher, Luray, Va., was elected to the presidency. He had served as vice-president from Region VI.

New vice-presidents elected were H. E. Throckmorton, Milton, W. Va., Region VI and Robert Bishop, Powell, Wyo., Region I.

Total membership figure given at the time of the convention was 6,153. Late memberships received will swell that total to almost 8,000.

Once again, an Exchange of Ideas contest was held. This year winners were chosen from each of the six regions, and prizes were awarded by the Society for Visual Education, Chicago; Sears-Roebuck Foundation, Chicago; and National Agricultural Supply Company, Fort Atkinson, Wis. A picture of the winners will be found elsewhere in this convention report.

The 1954 convention will be held in San Francisco, Calif.

Conventions are hard on a man. Time to sleep is anytime that's available. Who could this be, I wonder?

Winners in the Exchange of Ideas contest were, (l-r) La Vell Parsons, Paso Robles, Calif., Region I; Joe A. Richardson, Hatch, N. M., Region II; L. E. Watson, Humboldt, Nebr., Region III; M. B. Jordan, Fort Pierce, Fla., Region V; and Jim Peters, Salem, Va., Region VI. Keith McGuire, not present in the picture, Polo, Ill., received a camera for winning the Region IV contest. Cameras were donated by the Sears-Roebuck Foundation; sets of filmstrips by the Society for Visual Education, Chicago; and electric drills by the National Agricultural Supply Company, Fort Atkinson, Wis.

★

Solar Energy in Housing

Utilization of solar energy to increase the efficiency of poultry house ventilating systems promises to be very beneficial to the poultry industry.

So states a report of the Orientation and Solar Energy Committee of the Northeastern Regional Poultry Housing Workshop. A house that makes use of solar energy is one that is designed to trap the rays of the sun. This has been made possible by the development of a farm grade of thermopane insulating glass.

The solar energy committee has made the following recommendations on poultry house design to make maximum use of solar heat in winter and to shut out the sun's rays in the summer:

(1) Face buildings due south with large area of insulating glass in the south wall.

(2) Use fixed, insulated windows in all walls.

(3) Use fan ventilation, separating air intakes and outlets from the window areas.

(4) Use adequate insulation in walls and ceilings.

(5) Provide a sunshade over the south windows to shut out direct sunlight in summer.

★

"That's a reminder—always be careful around the bull."

For more information from advertisers circle page numbers on ad index, page 56

Plywood Booklet

A new 16-page booklet containing photographs of Sea Swirl decorative fir plywood installations has just been issued.

This three-dimensional plywood is being used extensively in remodeling and new construction the manufacturer reports. The material comes in 4 x 8 foot panels, 5/16 inch thick, and is easy to handle and apply.

Booklet photographs show examples of Sea Swirl installations in homes and offices, as well as in a club, restaurant and church—both wall and ceiling applications, in full panels and parquet patterns. Free copy may be obtained by writing Associated Plywood Mills, Inc., P. O. Box 672, Eugene, Ore.

★

Mature Duroc Boar Placing

CORRECT PLACING—1-3-2-4

In placing this class of mature Duroc boars, the No. 1 and No. 3 boars were considered a close pair being quite similar in general type and confirmation. No. 1 was placed over No. 3 because he carries more length of body and is fuller and deeper in the lower ham. No. 1 also shows more breed character around the head being especially more desirable in the ear which is neater and breaks more nearly like the ideal Duroc ear.

Both boars show good masculinity and stand well on their feet and legs. No. 1 carries more width over the back, but both boars carry their width very uniformly from front to rear. No. 3 has the advantage in quality of haircoat and has a somewhat more desirable arch of back.

No. 3 was placed over No. 2 because of his greater depth and smoothness of side quality and over-all balance. No. 3 is neater and smoother in the shoulder, straighter in his front legs, and has a higher tail-setting. No. 2 has the advantage of a lower rear flankline and carries down a little deeper in the ham.

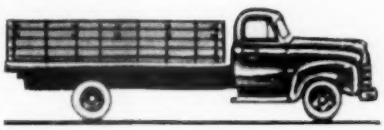
No. 4 was placed at the bottom of the class because he is very short and compact and quite steep in the rump. He also lacks the quality of the three boars placed above him as shown by his haircoat. No. 4 also tapers more from his topline to the base of his hams as viewed from the rear.

He does, however, have a good many strong points being deep and uniform in his depth, stands on strong bone with his legs out on the corners, is short in the neck, and clean and masculine in the head.

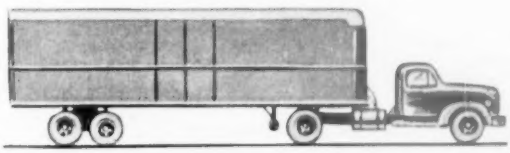
Better Farming Methods has for sale 34 different judging pictorials. Price of each, five cents.

You can't tell

where a truck like this leaves off



...and one like this begins...



serving the farmer

When you think about what you *sell* and what you *buy*—you'll see why the farm-owned, stake-body truck and the big "semi" intercity truck are both *farm* trucks.

Your crops go to market in your own truck, or in a larger one that comes right to your door. They go to factory, mill or processing plant, and they're made into everything under the sun, from corn flakes to linoleum, from a pack of cigarettes to clothing, shoes and luggage.

Today's expanded markets for all these items have been made possible by intercity trucks! And here's the proof:

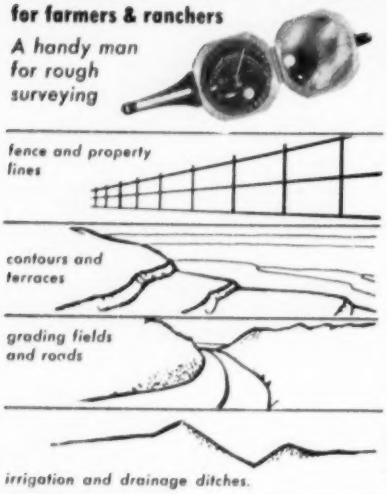
Next time you're in a supermarket or a department store, look around and see the quantity, the variety, the *quality* of goods on sale. When your own truck returns from a shopping tour, check the packaged foods, the new jeans, the work shoes or the bag of feed you bought against this thought: All of them got to the store by truck, and all of them started out by truck from a *farm* somewhere. You see, it *is* hard to tell where one type of truck stops, and the other type starts, serving you!

AMERICAN TRUCKING ASSOCIATIONS, INC.

American Trucking Industry

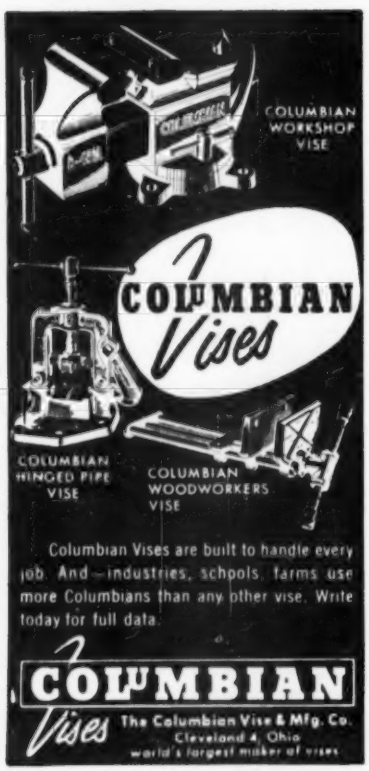
American Trucking Associations, Washington 6, D.C.

*BRUNTON POCKET TRANSIT
for farmers & ranchers
A handy man for rough surveying



Transit and new polyethylene case for only $45.30
Write for folder on farm and ranch applications
*a registered trade mark of Wm. Ainsworth & Sons, Inc.

Over 50,000 made since 1896 by
Wm. Ainsworth & Sons, Inc.
Manufacturers of engineering and scientific instruments.
2151 Lawrence St., Denver 2, Colorado


COLUMBIAN WORKSHOP VISE
COLUMBIAN Vises
COLUMBIAN HINGED PIPE VISE
COLUMBIAN WOODWORKERS VISE
Columbian Vises are built to handle every job. And—industries, schools, farms use more Columbians than any other vise. Write today for full data.
COLUMBIAN Vises
The Columbian Vise & Mfg. Co.
Cleveland 4, Ohio
world's largest maker of vises

In March,
Annual Husbandry Issue

AGENT CHANGES IN WISCONSIN—New assistant state 4-H club leader of Wisconsin is J. Mitchell Mackey, formerly assistant county agent in Milwaukee county. Moving over to Kenosha county as assistant agent is Paul Jaeger from Sauk county, where he held a similar position.

Robert Sumnicht has resigned as assistant agent in Dunn county to become county agent in Lincoln county. New faces in Wisconsin extension work are those of Paul Schink becoming assistant in Sauk, and George Mettum, tobacco agent in Vernon county.

Harry Vruwink has been granted a leave as county agent in Barron county to work on his masters degree in dairy husbandry at the University. Ed Syndergaard, former county agent and assistant state club leader in the state of Iowa, has taken over during that time. Vruwink will be back in the county on February first.

TEXAS EXTENSION CONFERENCE A SUCCESS—J. M. Cooper, county agent, Eastland, Tex., reports that the annual extension conference held at College Station, Tex., in November, was one of the best extension conferences he has ever attended. He pointed out that each county agricultural agent took two courses while at the conference which helped to bring him up to date on production, management, and marketing in the particular subject he selected.

Cooper also reports the following recent extension personnel changes in Texas.

Appointments: Glen B. Dunkle, assistant county agent, Wichita county; Albert Leroy Hoerman, assistant county agent, Harris county; Byron C. Price, assistant county agent, Dawson county; Joe S. Wheeless, assistant county agent, Denton county; and W. B. Woods, assistant county agent, Taylor county.

Transfers: Jack Burkhalter, assistant county agent, Dawson county, to county agent in Mitchell county; B. H. Johnson, assistant county agent in Guadalupe county to county agent in Hayes county; S. L. Mullins, assistant county agent in training in Scgleicher county to assistant county agent in Guadalupe county; Henry F. New from county agent in Hayes county to county agent in Guadalupe county; and L. M. Vaughn from assistant county agent in Washington county to county agent in Waller county.

Resignations: Houston E. Smith, county agent in Presidio county.

MONTANA AGENT SPEARHEADS LIVESTOCK ASSOCIATION—W. Y. (Bill) Fowler, county agent, Meagher county, Montana, is doing a bang-up job with his livestock men. Bill is an enterprising county agent with lots of initiative. He received his training at Kansas State College and has been county agent in Meagher county since April 1, 1952.

Bill is just a youngster as county agents go, but is really doing all right. He is 24 years old, married, and has a family of two, a boy Bill and a girl Jane Ann. Active in community affairs, he belongs to the Presbyterian Church, Masonic, and Rotary Club.

Since coming to Meagher county, Bill has been busy with the developments of an outstanding publicity and community service program based around the Meagher County Livestock Association.

ENJOYS FIRST YEAR SUCCESS . . .
Fowler believes in enthusiasm.

Meagher county ranchers are finding that it pays to advertise the livestock that they have for sale. The mile high Montana area has just begun to advertise, and it is catching on like a house afire.

At the summer meeting of the Meagher County Livestock Association, the idea was born. It was then decided to make the program voluntary. Each rancher entering could contribute 10c per head of cattle and 2c per head for sheep. Some 46 ranchers responded, "coughing up" $830. This represented 7,000 cattle and 6,500 sheep.

The first step was to have printed a pamphlet listing each man's cattle or sheep and some information about them. In the pamphlet was a summary statement of the area. It also said that any deals made were to be between the buyer and seller or their agents. The livestock publicity committee only handled the advertising.

The committee devised a series of

For more information from advertisers circle page numbers on ad index, page 58

. . . livestock farming has improved, program continues.

three inch display advertisements. To date advertisements have appeared in papers in Ohio, Illinois, Pennsylvania, Nebraska, and California. Response has come from Texas, Nevada, Montana, California, Oregon, North Dakota, Michigan, Wisconsin, Ohio, Illinois, Indiana, Pennsylvania, Nebraska, South Dakota, and Iowa. Some of the inquiries want a specific type of livestock, others want more information on the area, freight rates, name of order buyers, and others are just shopping. Some people have even called the association or someone with livestock listed in the pamphlet.

Meagher county, Montana, is located on highway 6 and 89 some 100 miles south of Great Falls or 150 miles northeast of Billings. Its 3,000 square miles of mountain and valley lands raise only hay, wheat, cattle and sheep. There are 165 ranchers in the county running a total of 40,000 cattle and 60,000 sheep. As can be told by the large number of second and third generation ranchers, it is a stable area.

It has never been "droughted-out." This has led to the livestock and ranching methods being continually improved. The livestock here are way above average, and generally this is reflected by the premium which is paid for them. The feeder knows they will make him money.

The work of the livestock publicity committee is being handled through the county agricultural agent's office at White Sulphur Springs. W. Y. (Bill) Fowler is the county agent, but his secretary, Mrs. Keith Foster does most of the work.

"The ranchers here realize that this is a long range program, and that the results this first year are unusual," says Fowler. "There are still a lot of kinks to be worked out."—*End.*

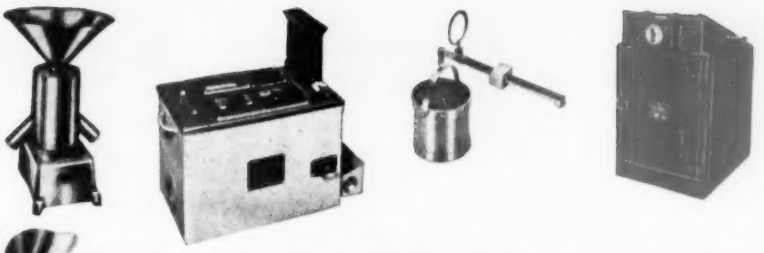
★

Record on Feeding

The Agricultural Department of Standard Brands Incorporated, manufacturers of FIDY, has available a limited number of pressings of their recent recording, "Yeast and Yeast Products in Animal Feeding."

This popular 78 rpm vinylite record, with its factual and authoritative information on animal nutrition is offered at no cost to interested agricultural leaders, county agents and vo-ag teachers on a first-come-first-serve basis.

Address requests to Standard Brands Incorporated, Agricultural Department, 595 Madison Avenue, New York 22, N. Y.



Vo-Ag Teachers
County Agents

Make GRAIN-GRADING and SEED TESTING an important part of your Educational Program.

YOU, THE FARMER, THE STUDENT and THE COMMUNITY will BENEFIT

Send for our free 60-page book "A COURSE OF STUDY IN GRAIN GRADING." It will help you get a program started.

SEEDBURO EQUIPMENT COMPANY

758 Converse Bldg. Chicago 6, Ill.

Buy from the Leading Supplier for Grain Inspectors and Seed Analysts since 1912. Qualified to help you with your problems.

TEACHING REMINDERS

JANUARY

This is the month you start a brand new year in which you try to do a better job than you have ever done before. Good farm operators are setting up definite goals and checking every detail. January is ideal for studying and its cold, snowy days provide the ideal atmosphere for students and farmers to catch the details of your lessons. The mistakes of 1953 will be repeated again in 1954 unless something is done to change the order of things. Did you let parents of your students use seed that was not checked for germination, weed seed, etc., to plant last season's crop? Did you neglect to include grain grading and the factors effecting it in last year's program? If your answer is "yes," then why not resolve to make a change. Our course of study in Grain Grading is yours for the asking.

LIVESTOCK—
Judging Pictorials

Judging pictorials, which have been featured in Better Farming Methods, are available to county agents, vo-ag teachers and other agricultural leaders.

We now have judging pictorials of Angus Cows, Angus Bulls, Berkshire Gilts, Berkshire Gilts (Class II), Brahman Heifers, Brown Swiss Cows, Columbia Ewes, Corriedale Ewes, Duroc Jersey Barrows, Duroc Gilts (Class II), Guernsey Cows, Hampshire Ewes, Hampshire Gilts, Hereford Heifers, Hereford Steers, Holstein Cows, Jersey Cows, Jersey Cows (Class II), Milking Shorthorn Cows, Percheron Horses, Polled Hereford Heifers, Polled Shorthorn Cows (Class III), Red Poll Cows, Shorthorn Bulls, Shorthorn Heifers, Shropshire Ewes, Southdown Market Lambs, Tamworth Gilts, Yorkshire Gilts, Chester White Hogs, and Poland China Hogs. Price, 5 cents each.

Send check or money order. No COD shipments.

Better Farming Methods **Mount Morris, Ill.**

Teacher's Farm Shop

Teach Proper Maintenance of Common Storage Batteries

By T. J. Wakeman

Teacher-Trainer in Farm Mechanics
Agricultural Engineering Department
Virginia Polytechnic Institute

● THE PROPER MAINTENANCE of storage batteries used in our autos, trucks, and tractors is another great teaching opportunity for our vo-ag departments.

Statistics show farmers get little more than 60 percent of the normal life of their storage batteries. Satisfactory service is not always realized during this abbreviated period. The auto, tractor, or truck may have to be pulled to get the engine started due to so-called "battery failure."

Many times this battery failure is due to "operator failure" in properly maintaining the battery. The operator's failure could be due in part to we as vo-ag teachers not taking the opportunity we have to teach battery maintenance to our groups.

Pose Questions to Students

As part of a motivating step, ask your group questions similar to these: What is the average life of your storage batteries? What caused your batteries to fail you? Do you fail to do your part in maintaining the battery? What did your extra batteries cost you in money? In inconvenience?

The teaching of proper battery maintenance is a challenge to every vo-ag department in the nation. The only equipment needed besides that found in the average department is a battery hydrometer costing less than $2.

Most all batteries are guaranteed for a definite amount of time provided they are properly maintained.

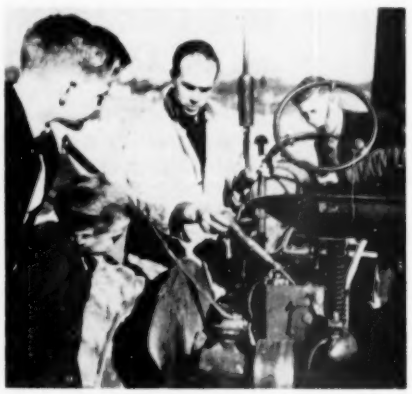
Use These Suggestions

The following are suggestions for maintaining a battery in order to get the longest and most satisfactory service.

1. Keep the battery water level above the top of the separators. The level should be checked about every two weeks in normal weather; check each week during hot weather. Never add new water to a battery in cold weather without operating the engine so the current from the generator will mix the acid with the added water.

2. Use only distilled or clean rain water that has not been in contact with metal for filling the battery.

3. Keep the battery fully charged using a hydrometer for checking each cell. Each cell should test between 1.250 and 1.280 at 80°. If any cell tests dead after charging, it is useless to hope for further service from the battery.



B. G. Cromer, vo-ag instructor, Blacksburg, Va., demonstrates the use of a battery hydrometer to his students.

Keep Vehicles Under Cover

4. Make every effort within reason to shelter the vehicle or tractor to protect the battery and engine from extremely low temperatures. If there is no shelter, the battery should be insulated. A fully charged battery has only 40 percent normal power at 0 degrees temperature as it has at 80 degrees. Furthermore, the cold engine requires much more energy for cranking at 0 degrees than it does at 80 degrees. Never use an open flame to warm a battery, it may explode.

5. The vent holes in the filler caps must be kept open at all times. If allowed to close up, that cell of the battery may burst open.

6. Keep the battery tight in the battery box. Do not allow it to move around. It may crack the battery case.

7. All connections must be kept tight and clean. To clean the battery, brush the dirt off the battery and sprinkle a little baking soda over the top of the battery (except fill caps). Add a little water to allow the soda to neutralize the corrosion. Next, run water over the top of the battery until the soda is washed off. Repeat as long as the soda foams. Treat the battery box and terminals in the same way. Then grease the terminals to retard corrosion.

8. When removing the cables from the terminals, do not pry the cable from the terminal. You may break the terminal post loose in the battery. Loosen the nuts with a wrench of the proper size. Next insert a screw driver in the slot of the connection and pry it apart to relieve the grip on the terminal post. Then work the connection loose and move it.

9. Keep the vehicle in which the battery is being used properly fused. This will help to prevent battery damage due to short circuits.

10. Maintain the engine properly to prevent excessive cranking thus preserving the battery.—*End.*

★

Farm Roofing Manual

To help the farmer take advantage of the increasing supply of aluminum available for farm use, Aluminum Company of America has published the first comprehensive booklet on aluminum farm roofing.

The farm roofing manual discusses first why and where aluminum roofing should be used. Then after presenting some remarks of farmers who have successfully used the product, the booklet illustrates with drawings how to measure the various types of farm roofs. These measurements can then be applied to the exclusive coverage chart included in the manual to accurately estimate the number of Alcoa sheets required.

The "Alcoa Farm Roofing Manual" may be obtained by requesting it from Aluminum Company of America, 805 Alcoa Building, Pittsburgh 19, Pa.

Get These Free-Loan SOUTH BEND Models . . .

SIMPLIFY YOUR SHOP PLANNING

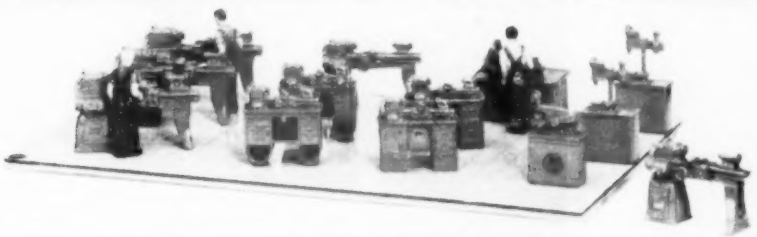
Here's the easy, practical way to rearrange your shop or plan a new one without guesswork and trial-and-error labor.

Just mark your floor dimensions on the scaled planning sheets, furnished with the kit. Then, select the scale models of the machine tools the shop will contain. Move them around until you get the best possible arrangement. Since everything is to scale (¾" = 1') this 3-dimensional planning definitely establishes your working plan. You know exactly what you are going to have before the first machine is spotted. Space utilization, traffic patterns and work areas are determined exactly.

The kit contains 23 scale model machine tools and planning sheets for rooms up to 39' x 56'. It's yours to borrow for only the cost of transportation. Save yourself time and effort by sending for it now.

Teaching Helps

These aids will make your teaching easier. Handbooks on the operation of lathes, drill presses and shapers. Book on projects. Wall charts. 16 mm. sound films in full color on "The Metal Working Lathe," "Plain Turning" and "Grinding Cutter Bits." Sample copies of all printed material free to shop instructors or supervisors. Films available on free-loan basis, borrower pays transportation.



SOUTH BEND LATHE South Bend 22, Indiana

Please ship your Shop Model Kit to address below, express collect. I wish to borrow the kit for approximately_____days, and agree to return it to you, express prepaid, at the end of that time. Shop being planned is to be located at_____. I understand there is to be no charge for the loan of this kit, other than the transportation costs which I am to pay.

SCHOOL_____

STREET ADDRESS_____

CITY_____ STATE_____

BY_____ POSITION_____

with RAIN BIRD Sprinklers

Forecast local showers when you want them, where you want them, with Rain Bird Sprinklers. They're engineered to provide even distribution of water at less cost, less labor, and are famous the world 'round for their faultless operation.

To stop erosion and for higher crop yield, let Rain Bird solve your irrigation problems.

Our research and planning department is at your service. Write today without obligation.

NATIONAL
RAIN BIRD SALES & ENGINEERING CORP.
AZUSA, CALIFORNIA
RAINY SPRINKLER SALES
1433 WEST LAKE ST., PEORIA 5, ILLINOIS

LOW-COST LEVELS
for better farming

Model 8020 Plain Type. Complete with carrying case, tripod, rod, etc.

Model 8022 Convertible Type, (can plumb vertical lines.) Complete with carrying case, tripod, rod, etc.

• *Recommended by leading Ag schools*
Real engineering aids for better farming... low cost, plain and convertible farm levels. Ideal for soil conservation . . . contouring, laying out drainage and tile ditches. Also for laying out building lots, foundations, roads, landscapes, gardens, fence lines, etc. Both come with complete equipment and simple, illustrated instructions. See our nearest dealer or write direct.
Illustrated Leaflet Free on Request.
DAVID WHITE CO.
389 W. COURT STREET
MILWAUKEE 12, WIS

PUMP UP TIRES
This Easy Way—anywhere—anytime with ENGINAIR
YOUR MOTOR DOES THE WORK

End tire pumping forever—here is an easier on-the-spot way to inflate car, tractor, cycle or even truck tires, also rubber boats, air mattresses, etc. to correct air pressures. Attached in one minute. Your engine does all the work—PUMPS ONLY COOL, CLEAN AIR at pressures up to 105 lbs. Comes in compact box complete with 16 ft. hose, built in gauge and pumping unit. Simple to use, guaranteed 2 years—will give years of faithful service—millions in use.

At your dealer's, or direct from
ENGINAIR SPARK PLUG TIRE PUMP **$5.74** POSTPAID
G. H. Meiser & Co. (Est. 1906)
330 E. Marquette Road • Chicago 37, Illinois

The Challenge of Our Time

In celebrating 50 years of farm demonstration work, county agricultural agents have cause to reflect on the accomplishment of the last 40 years of Extension Service work in planning for the future. The complexity of agricultural problems in production and marketing requires the capable leadership of farm people. County agents can contribute much to the building of a well informed farm leadership.

Joe T. Brown

Questions are being raised in 1954 about the wisdom of our national agricultural programs and plans are under way for an evaluation of these programs and to enact legislation to meet the present needs. While our agricultural production is at a very high level despite the drought, and the price-cost squeeze, an over-abundance of many commodities is plaguing the American farm economy.

At times it is difficult to reconcile statements that a rapidly expanding population requires greater food supplies with our present surplus situation. We talk about conservation of our natural resources as a pressing problem, yet we raise an over production of many commodities which further deplete our soil, machinery, and man power. These inconsistencies challenge county agricultural agents to help develop a research and education program that will strengthen American agriculture. In recent years we have attempted to deal with this situation on a short term basis. A solution must be found in a long range program. A sound approach to these needs is through research and education.

Plans for expanding the cooperative USDA and Land Grant College system of research and education have been proposed to meet the growing demand of modern agriculture. Therefore, county agricultural agents will be expected to develop a more intelligent program for production and marketing. Technical and economic information to initiate a sound, long range program for the individual farmer is in prospect. By so doing, the Extension Service can guide farmers to adopt new production methods as they become available and to make such changes in his production program as make it desirable to meet changing marketing conditions.

Greater opportunities for farm youth is stressed in looking forward to the next generation. County agricultural agents must find means of making the transition in education from 4-H club to active farming careers.

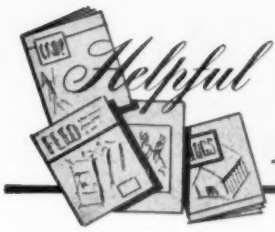
A reorganization of the United States Department of Agriculture has been set in motion to streamline and to make more effective the service of agricultural agencies to the public. County agricultural agents are in an enviable position to explain the aims and objectives of various agencies to the general public. While each agency has a specific job to do, there is need for correlation of all agricultural education and service work. County agents, too, are in a position to initiate this coordination within their own counties.

The job ahead is one that requires a growth in the capacity of county agricultural agents. Decisions must be reached about what jobs come first, and the evaluation of the programs we have had in the past must be in light of the demands of the future. There must be a speeding up of getting research information into practice.

This will require the presentation of factual material and the motivating of people to act more quickly than in the past. Though the cost-price squeeze and general unfavorable farming conditions plague farmers at the present time, county agricultural agents must be mindful of the responsibility for the welfare of the nation in years ahead. We must guard our nation's food. The aims and objectives of the American public are not unalike. The matter of understanding makes the difference. With the help of thousands of capable well-informed farm people, these objectives can be realized.—Joe T. Brown, president, National Association of County Agricultural Agents.

Officers of the Michigan 4-H Club Agents' Association named at Michigan State College during the annual Extension Conference include (l-r) Leonard Hill, Berrien county, St. Joseph; vice-president; K. C. Ferterling, district 4-H Club agent in Emmet and Charlevoix counties, Boyne City, president; and Walter Messer, Lapeer county, Lapeer, secretary-treasurer. (MSC Photo)

For more information from advertisers circle page numbers on ad index, page 56



Helpful BOOKLETS

FARM EQUIPMENT

AMERICAN CHAIN & CABLE COMPANY
—"DH-153—Double Your Traction"
—"DH-C411—Roto-Grip Tractor Chains"

ALLIS-CHALMERS MFG. COMPANY
—"Making Paydirt Last"
—"New Roto-Baler"
—"Model G Rear Engine Tractor"
—"Two-Way, Two-Furrow, Spinner Plow"
—"New Forage Harvester and Blower"
—"Allis-Chalmers Model CA Tractor"
—"New 6-Foot All-Crop Harvester"
—"Subsoilers for Model CA & WD Tractors"

AUTO SPECIALTIES MFG. COMPANY
—"Facts About Tractor Improvement"
—"Revolutionary Wigle Hoeing Attachment"
—"The Stopping Story"
—"Ausco Lambert Double Disc Brakes"

BRILLION IRON WORKS, INC.
—"How Brillion Makes Grassland Farming Really Successful"
—"The Brillion Line of Soil Pulverizers"
—"The Brillion Pulvi-mulcher for Preparing All Seed Beds"
—"Figure It Out for Yourself"
—"The Story of Grass . . . and How To Seed It Successfully"

BURROWS EQUIPMENT COMPANY
—"Catalog on Grain Testing Equipment"

CATERPILLAR TRACTOR COMPANY
—"Sure Harvests with Caterpillar"
—"What's In It For Me?"
—"More Profit from Livestock"
—"Power for the Fruit Grower"
—"Caterpillar for Irrigated Farming"

CONTINENTAL STEEL CORPORATION
—"Grassland Farming"
—"Practical Plans for Farm Building"
—"Handy Pocket Record Book"

DEERE & COMPANY
—"Soil Conservation"
—"Hungry Soil"
—"How to Fight Corn Borers"
—"Harvesting and Feeding Chopped Hay and Grass Silage"

GEHL BROS. MFG. COMPANY
—"Streamlined Methods of Harvesting Hay and Making Grass Silage"
—"Forage Harvester With Quick Change-Over for 3-Way Harvesting"

H. D. HUME COMPANY
—"Hume Handbook"

HANSON CHEMICAL COMPANY
—"Hanson Brodjet All-Purpose Sprayer"
—"More for Your Money with Brodjet"
—"Accident? Heck, No!"

INTERNATIONAL HARVESTER CO.
—"The Story of Twine in Agriculture"
—"Land of Plenty"
—"More Productive Gardening"

MEYER MFG. COMPANY
—"The Meyer Hay Conditioner"
—"New Meyer Method of Conditioning Hay"

MILWAUKEE EQUIPMENT MFG. CO.
—"What Rotary Tillage Will Do For You"
—"Second Frontiers"
—"Gardening for Pleasure or Profit"

MINNEAPOLIS-MOLINE COMPANY
—"Highlights in History of America"
—"The BF Hi-Torque Tractors"
—"The New UB Tractors"
—"The New G Tractor"
—"Mounted 2-Row Huskor"
—"Uni-Tiller"
—"Self-Propelled Harvestors"
—"The Bale-O-Matic"
—"The Harvestory"
—"The New 88 Harvestor"
—"Uni-Harvestor"
—"New Hitchor for the BF Tractor"
—"Minneapolis-Moline Calendar"
—"Pioneers of Progress"

NEW IDEA FARM EQUIPMENT CO.
—"New Ideas for Handling Manure"
—"Marching Ahead With Corn"

RITE-WAY PRODUCTS COMPANY
—"Rite-Way Swing Milker and Parlor Milker"

ROTOTILLER, INC.
—"A Little Power—A Lot of Living!"

D. B. SMITH COMPANY
—"Indian Back-Pack Fire Pumps"
—"Smith Sprayers"

SEAMAN'S MOTORS, INC.
—"Benefits of Rotary Tillage"
—"Questions, Answers on Rotary Tillage"

Please send me copies of the following J. I. Case educational inserts that have been published in Better Farming Methods.

.....copies of "How To Renovate A Pasture."

.....copies of "Principles of Contour Farming."

.....copies of "How To Build A Farm Pond."

.....copies of "Instructor's Guide to Grassland Farming."

J. I. CASE COMPANY
—Catalog on Visual Education Materials
—"Water Spreading"
—"Level Farming on Sloping Fields"
—"Win Against Water"
—"Build A Pond"
—"Moldboard Terraces"
—"Strips and Curves"
—"More Food From Fewer Acres"
—"How to Produce High Protein Hay"
—"Handling Manure for Extra Benefits"
—"Advanced Farm Practices"
—"Modern Machines Bring Back the Range"
—"Pageant of Progress"
—"One Acre Equals Four Acres" (modern pasture improvement)
—"Hydraulic Controls"

Service Charts—24 x 36 inches:
—"Easy Plan for Building a Terrace"
—"Contour Farming Pays in Three Ways"
—"The Island System of Terracing"
—"Build A Pond"
—"Strip Cropping Increases Yield"
—"New Life for Your Land"
—"Sectional View Model D Engine"
—"For Best Power Take-Off Performance"
—"Combine Sectional View—Model A"
—"The Saga of Sawdust Sam" (safety)
—"Community Leaders"
—"Combine Sectional View Model F-2"
—"Hydraulic Controls"
—"Money Crops—New and Old"
—"Rebuild Old Pastures and Get Four Acres' Yield From One"

MASSEY-HARRIS COMPANY
—"High Quality Forage" (Individuals limited to 15 copies)
—"Offset Disc Harrows"
—"Slicer Hay Baler"
—"The Pony Tractor"
—"Snow Plows & Dozers"
—"Massey-Harris Corn Pickers"
—"Cultivating Equipment"
—"Sub-Soil Cultivators"
—"Farm Wagons"
—"One-Way Discs"
—"Grain Drills"
—"Massey-Harris Tractors"
—"Massey-Harris Plows"
—"Massey-Harris Manure Spreaders"
—"Massey-Harris Haying Tools"
—"Massey-Harris Combines"
—"Weed and Insect Sprayers"
—"Good Forage The Key To Livestock Profits" (limit of 15 copies)

IRRIGATION

W. R. AMES COMPANY
—"Roto-Rain Revolving Sprinkler Systems"
—"Perf-O-Rain Low Pressure Sprinkling"
—"Gated Surface Pipe-Controlled Watering"
—"Tow-A-Line Revolving Sprinklers"
—"Lo-Head Surface Pipe"

HERE IS HOW TO ORDER BOOKLETS!

1. **Print your name and address on the blank lines below.**
2. **Place a check mark in the blank opposite the booklets you want to receive OR write in this blank space the number of copies of each booklet you desire.**
3. **Tear out these pages from the magazine and mail them to the HELPFUL BOOKLETS DEPARTMENT, BETTER FARMING METHODS, MOUNT MORRIS, ILLINOIS.**

Name: .....

Address: .....

There are additional booklets listed on the next page.

Be sure to check this section next month, too. A completely different listing of booklets will appear.

DO YOU want more information from our advertisers? See ad index, next page.

CARVER PUMP COMPANY
—"Planning An Irrigation System"
—"Carver Irrigation Pumps"

IRRIGATION ENGINEERING COMPANY
—"Analeaf—Leaf and Soil Testing Outfit."
—"Tensiometer—Soil, Moisture Tester"

IRRIGATION EQUIPMENT CO. INC.
—"Why Buy Ireco Sprinkler Irrigation?"
—"What Sprinkler Irrigation Offers You"

FARMLAND IRRIGATION COMPANY
—"Designing a Sprinkler Irrigation System"

F. E. MYERS & BRO. COMPANY
—"Water Systems and Pumps" (MS-53)
—"What to Know About Soft Water"

HALE FIRE PUMP COMPANY
—"Data on Irrigation Pumps"

RAIN BIRD SPRINKLER MFG. CORP.
—"Sprinkler Irrigation Handbook"

REYNOLDS METALS COMPANY
—"More Income Per Acre With Portable Sprinkler Irrigation"

SKINNER IRRIGATION COMPANY
—"Skinner System Agricultural Sprinklers"

THOMPSON PIPE & STEEL CO.
—"Booklets on Automatic Gates, Flumes, and Ditchers"

YARDLEY PLASTICS COMPANY
—"Bul. 52-B, Yardley ClearStream Pipe for farming, mining, water systems"
—"Bul. 200, Pipe for Jet Pumps, Farm Water Systems"
—"Bul. 222, ClearStream Twin-du-it Pipe"

WORTHINGTON CORPORATION
—"Fertile Fields, Yours for the Pumping"

MARVIN LANDPLANE COMPANY
—"Preparing Land for Irrigation"

TEACHING AIDS

THE FAIR PUBLISHING HOUSE
—"Catalog on Fair Ribbons and Supplies"

NATIONAL AGRICULTURAL SUPPLY CO.
—"Nasco Catalog for Stockmen, Dairymen, and Specialized Farmers"
—"Nasco Home Economics and Home Demonstration Catalog"

SUNBEAM CORPORATION
—"Benefits of Clipping Dairy Cattle"
—"How to Harvest the Farm Wool Crop"
—"Dairy Cow Clipping Demonstration"
—"Sheep Management Practices"
—"Tips on Sheep Shearing"

MINNEAPOLIS-HONEYWELL
—"Automatic Way to Make Farming Pay"

J. C. MARLOW MILKING MACHINE CO.
—"Marlow Milking Systems"

LP-GAS INFORMATION SERVICE
—"Facts on LP-Gas as Tractor Fuel"
—"Better Living with LP-Gas"

SWIFT AND COMPANY
—"The Story of Poultry"
—"The Story of Dairy Animals"
—"Meat and the Mississippi River"
—"The Story of Plants"
—"The Story of Grass"
—"The Story of Meat Animals"
—"The Story of Soil"
—"Hog By-Products"
—"Lamb By-Products"
—"Cattle By-Products"
—"Countin' Pennies"
—"When Handling Livestock, Easy Does It"
—"Cattle, Calves, and Beef"
—"Livestock Prices and Their Change"

SUDBURY LABORATORIES
—"The Good Earth"

TENNESSEE CORPORATION
—"Essential Mineral Elements"
—"Rare Elements in Plant Nutrition"

UNIVERSAL MILKING MACHINE
—"What Type Milking Machine"
—"Inside Story of Modern Milking"
—"Milkers that Are Years Ahead"
—"Increased Milk Production"

TOOLS

BOSTROM-BRADY MFG. COMPANY
—"Farm Levels and Direction Booklet" (for use in terracing, irrigation, drainage, etc.)

COLUMBIAN VISE & MFG. COMPANY
—"Levels" (showing different models)
—"Vises" (showing bench vise requirements)
—"Vises" (showing proper use and care)

G. H. MEISER COMPANY
—"Engine Operated Spray Set and Air Compressor"
—"Engine Operated Tire Pump"

ROCKWELL MFG. COMPANY
—"How To Plan a School Workshop"
—"How to Start Your Home Workshop"
—"Booklet on Home Building"
—"Space Limited?" on home shop planning
—"Build Happiness in Your Home"

STANLEY TOOLS
—"Stanley Steel Square Booklet"
—"Tool Catalog, pocket-size"
—"Expert Soldering Booklet"

SOUTH BEND LATHE WORKS
—"Reasons You Should Use South Bend Tools"

H. K. PORTER, INC.
—"How to Use and Sharpen Pruners"
—"How to Use and Sharpen Metal Cutters"

WALKER-TURNER DIVISION
—"Catalog of Metal and Woodworking Tools"
—"Set of Teaching Aids"

ELECTRIFICATION

LYON RURAL ELECTRIC COMPANY
—"Equipment Catalog"
—"Electric Beak Cauterization"
—"Electrification of Fuel Heated Incubators"
—"Plans for Outdoor Electric Brooder"
—"Plans for Indoor Electric Brooders"
—"Plans for a 100-Egg Glass Incubator"
—"Permanent Prevention of Flying"

WESTINGHOUSE ELECTRIC CORP.
—"Electrical Equipment You Can Build"
—"Motors and Controls for Farm Jobs"
—"How to Build an Electric Motor"
—"Electricity in the Milkhouse"
—"Electric Welding on the Farm"
—"How to Apply Lighting on the Farm"
—"Electrical Demonstrations You Can Do"
—"Teaching Aids for Vo-Ag Teachers"
—"4-H Electric Program Catalogue"

VISUAL AIDS

BELL AND HOWELL
—"Movies Go To Work"
—"Learning Unlimited"
—"Free Film Sources"
—"Architects Visual Handbook"
—"Teaching Eternal Truths"
—"Tips on Making Your Football Movie"
—"Tips on Christmas Movie Making"
—"Tips on Movie Camera Lenses and Filters"
—"Tips on Editing Your Home Movies"
—"Tips on Magnetic Sound Movies"
—"New Voices for Your Movies"
—"New Voices for Education, Church, and Business Movies"
—"Tips on Vacation Movie Making"
—"Tips on Color Movie Making"
—"Tips on Movie-Making Tricks"

DEVRY CORPORATION
—"Use of Motion Pictures in Education"
—"Organizing Student Operators' Club"
—"Re-Using Audio-Visual Materials"
—"Using Motion Pictures in Classroom"
—"Organizing an Audio-Visual Department"

RADIANT MFG. CORPORATION
—"More Brilliant Projection"

THE VENARD ORGANIZATION
—"Source List of Films"

RADIO CORP. OF AMERICA
—"Information on RCA 400 Projectors"
—"Brochure on Junior-Senior Projector"
—"RCA '400' Junior Projector Catalog Sheet"
—"Flexibility of RCA 400 Projection Line"
—"RCA 400 Magnetic Sound Projector"
—"RCA Sound Products Catalog"

VICTOR ANIMATOGRAPH CORP.
—"Blue Print for an Audio-Visual Program"
—"Specifications on 16 mm. Projectors"
—"Where to Get Films and Information"
—"Get Results when Showing a Movie"
—"Classroom Audio-Visual Aids"
—"Descriptive Folder on Magnesound"

DO YOU WANT MORE INFORMATION FROM OUR ADVERTISERS?

If so, just circle the page number below of the advertisements that interest you. We will forward your request to the individual company concerned.

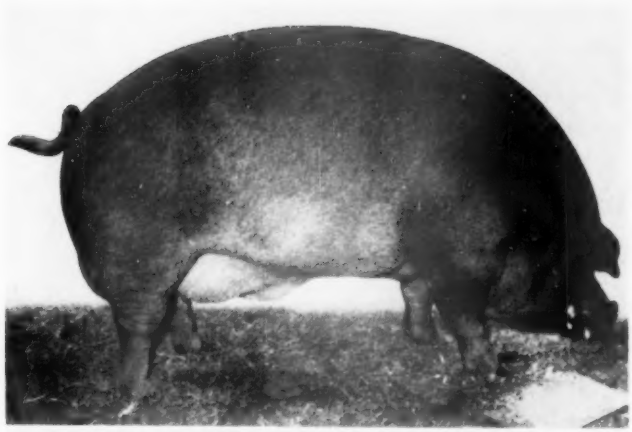
ADVERTISERS' INDEX

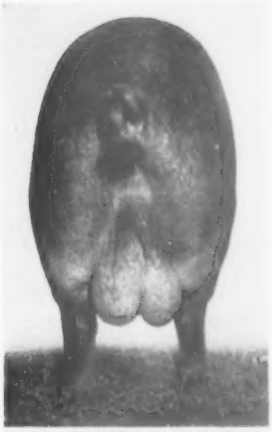
Ainsworth & Sons, Inc., Wm. 50
Amer. Brahman Breeders Ass'n. 42
Amer. Cyanamid Co. 15
Amer. Trucking Ass'n., Inc. 49
Associated Sales & Supply Co. 32
Bersworth Chemical Co. 36
Bolens Products Div. 42
Butler Manufacturing Co. 7
California Spray Chemical Corp. 27
Case Company, J. I. 9
Columbia Sheep Breeders Ass'n. 36
Columbian Vise & Mfg. Co. 50
Continental Motors Corp. 33
Deere & Company 41
DeKalb Agricultural Ass'n., Inc. 60
Eastman Chemical Products, Inc. 31
General Chemical Division 25
Hahn, Inc. 14
Hale Fire Pump Co. 48
Hales & Hunter 22
Hercules Powder Co. 21
International Mineral & Chem. Corp. 8
Johns-Manville Corp. 5
Mathieson Chemical Co. 35
Meiser & Co., G. H. 54
Minneapolis-Moline Co. 59
Nat'l. Agricultural Supply Co. 3
Nat'l. Rain Bird Sales & Eng. Corp. 54
New Idea Farm Equipment Co. 47
Niagra Chemical Div. 22
Nitrogen Div. 23
North Dakota State Seed Dept. 43
Oliver Corp. 11
Pfizer & Co., Inc., Charles 19
Seedburo Equipment Co. 51
Shell Chemical Co. 12 & 13
South Bend Lathe Works 53
Spencer Chemical Co. 37
Squibb & Sons, E. R. 2
Thompson Chemical Corp. 42
Thompson-Hayward Chem. Co. 17
U. S. Steel Co., Agricultural Extension Section 39
Velsicol Corp. 26
Walker-Turner Div. 43
White Co., David 54
Wis. Alumni Research Foundation 36
Wyeth, Inc. 29

Join the MARCH OF DIMES
IT WILL TAKE MORE IN '54!
January 2 to 31

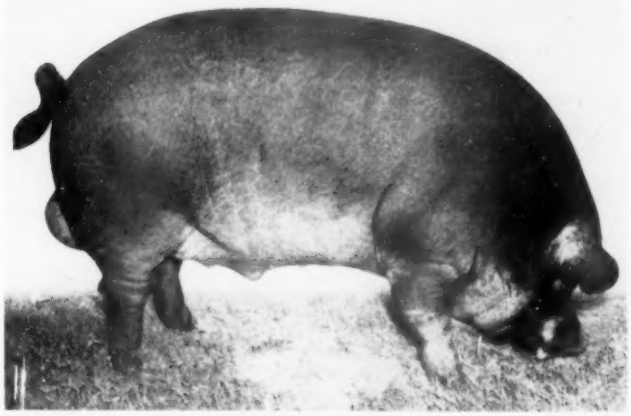
Duroc Judging Pictorial

(Mature Boars)

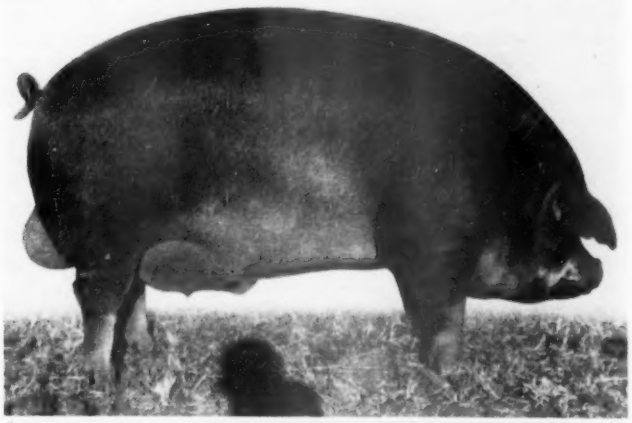




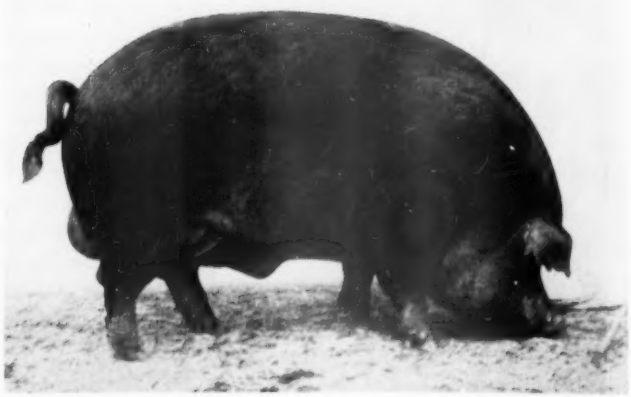
1



2



3



4

(See page 49 for correct placing)

For What It's Worth

By HERBERT L. SCHALLER, Editor

A Bum Steer

It isn't every year that a steer crowned Junior Grand Champion at the International Livestock Exposition is disqualified after receiving the coveted award.

But it happened this year.

A Wisconsin boy won the Junior Championship with his steer, and then saw it disqualified. His steer was too old.

Upon investigation it was reported that: (1) The disqualified steer was barred at a Wisconsin show prior to the International for the same reason; (2) another steer of his was disqualified prior to the show because he hadn't owned it long enough (he admitted this); (3) no less than four steers from his county in Wisconsin were subsequently disqualified; and (4) adult leaders signing his entry blank refused to comment on the question of the steer being over-age.

For the moment, it is not our position to judge whether the boy was right in claiming the steer to be of proper age, wrong in his position, or merely a victim of circumstances.

However, there is a much deeper significance to this whole episode, for it points up some glaring weaknesses on the part of boys, agricultural leaders, and we as a people.

First, there is a growing tendency among people today, and that includes your groups, that it is not so much whether you are doing right or wrong, but whether or not you get caught doing it.

This philosophy, if you wish to call it that, is prevalent in many places. We have set such an example for all to see in our national, and many of our local governments. Right or wrong? That's not the question. The "popular" attitude is to do it anyway, but don't get caught!

This is an extremely dangerous position. In leading the farm youth of America, such an attitude can only destroy character, not build it. It makes a sham of the ideals as set forth by the 4-H and FFA organizations.

If any ag leader knowingly condones, approves, or aids such a philosophy he is a detriment and a disgrace to his profession and to his farm people.

Second, no contest was ever conceived in the field of agriculture where winning the prize became the only goal. Contests are a by-product of teaching, not vice-versa.

There is a growing tendency today to stress contests to the point where they become a detriment to agriculture and the particular organization concerned. Some of the winners of contests on a group and individual basis, and their coaches, make a sham of the entire affair.

Ag leaders need to take extra precautions concerning contests that involve themselves, and, especially, their young people. A contest must serve a purpose for the people engaged in them and not the people serve the purpose of the contest.

Last, any attempt to be dishonest deserves no reward, only punishment.

In this case, the steer was purchased by a Chicago man for a fancy price. "I felt sorry for the boy," the papers quoted him as saying.

Rubbish! The man wanted publicity. He got it—at the expense of the boy, his ag leaders, and agriculture as a whole.

IF the boy deliberately tried to cheat on his entry, he deserved no sympathy. His ag leaders deserved no sympathy.

His steer should have been sold on the open market and removed immediately from the show. He should have lost his credentials. His leaders who signed his entry blank and helped him in his project should have received a stiff reprimand.

Where do we get this sorry stuff for any attempt to be dishonest? In this instance, if not already, someone will say in effect to the boy: "So what? You may not have won, but look at all the money you got! It paid you, didn't it?"

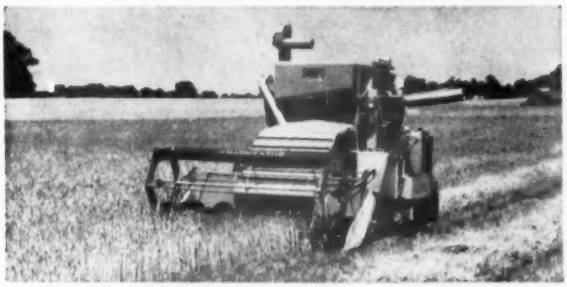
No attempt to cheat or be dishonest ever won a thing. The one who cheats hurts only himself. It is a basic law of life.

It is hardly conceivable that the boy raised and entered his animals strictly on his own. Somewhere along the line he asked for and got help and counsel. He must have received it, but it wasn't the right kind. Instead, he got a "bum steer".

His leaders must share a great portion of the blame. They certainly can take little pride or happiness in their counsel.

HLSchaller

you're self-propelled in every crop at FAR LESS COST than 'pull-behinds'

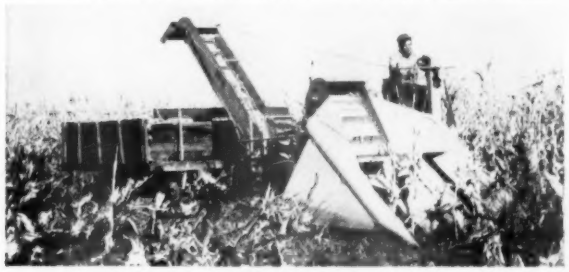


COMBINE GRAIN, BEAN and SEED CROPS

Harvest time is profit time with the MM Uni-Combine on the job! Think how much *faster and easier* combining can be when you enjoy the advantages of this self-propelled machine.

FIELD-CHOP SILAGE CROPS

You get silage ready for the silo in peak condition with this big-capacity, self-propelled MM Uni-Forager. Interchangeable heads let you handle either corn or windrowed hay crops.



PICK and HUSK CORN

Here's 2-row corn husking at its self-propelled best! With this MM Uni-Huskor, you cover ground as never before . . . do a thorough job that helps get top yields from every acre.

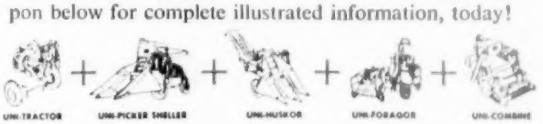
PICK and SHELL CORN

One fast trip through with this Uni-Picker Sheller, shells corn with up to 30% moisture content or more. You get your corn earlier, cut losses from corn borers or wind damage.

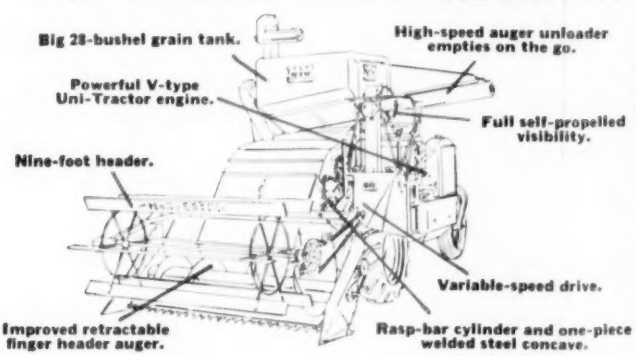
MINNEAPOLIS MOLINE MM MODERN MACHINERY

UNI-FARMOR

For speedy, high-capacity harvesting of *any* crop, you can't beat a self-propelled unit. And now, with the revolutionary new Minneapolis-Moline Uni-Farmor, you take the field with a self-propelled machine on every harvest job! And that's not all! The self-propelled Uni-Farmor actually costs you *far less* than the conventional tractor and "pull-behind" machines you'd need to do the same jobs. Your MM dealer can prove in black and white that you can *save* as much as *$1600 or more*, by buying the Uni-Farmor. Savings like *that* mean a *bigger* profit margin for you . . . *extra net earnings* from the land you farm. Get the facts for yourself. Mail the coupon below for complete illustrated information, today!



MINNEAPOLIS-MOLINE MINNEAPOLIS 1, MINNESOTA


Big 28-bushel grain tank.
High-speed auger unloader empties on the go.
Powerful V-type Uni-Tractor engine.
Full self-propelled visibility.
Nine-foot header.
Variable-speed drive.
Improved retractable finger header auger.
Rasp-bar cylinder and one-piece welded steel concave.

Cut out and mail, today!

MINNEAPOLIS-MOLINE
MINNEAPOLIS 1, MINNESOTA

I'm interested in buying the MM Uni-Farmor with the harvesting attachments checked below. Please send me, without obligation, full information on these machines. I farm ..... acres.

- ☐ UNI-FORAGOR
- ☐ UNI-COMBINE
- ☐ UNI-PICKER SHELLER
- ☐ UNI-HUSKOR

I'd also like free literature on the MM machines I've listed below:

_____

_____

Name _____

RFD _____ **Box** _____

Post Office _____ **State** _____

Livability
DeKalb Research reveals and selects strains with high resistance to disease, discards all others. Sturdy parent birds pass on their stamina to their offspring—the chix you get from DeKalb.

Layability
Thorough testing of thousands of birds, hundreds of combinations, discovers and proves the rare blood lines with two-fold layability—to start laying early and continue steadily throughout the year.

Growth
DeKalb poultry breeders, never satisfied, screen and rescreen the blood lines in endless search for chix which grow fast, mature early, start young on long laying careers.

Better Egg Quality
Research follows through to market eggs from DeKalb Chix, makes special tests for the upstanding yolks and firm, round whites that discriminating housewives demand.

Sugar—Oil—Protein Content
Continuous probing of the chemistry of the corn kernel, is creating new varieties—both grain and silage types—for better content of sugars, oils and proteins.

Varieties for Thick Planting
To unlock the treasure of rich soils, DeKalb conducts extensive plot tests which prove the varieties that respond best to thick planting and high levels of fertility.

Insect and Disease Resistance
Year in, year out, DeKalb tests the ability of established varieties and experimental crosses to withstand pests and disease. Thus research brings forth varieties with bred-in resistance.

North Pole, Tropical and Dryland Varieties
By persistent research, frontiers are being pushed out, horizons are being broadened with corn varieties that thrive in the far Northern, the far Southern and the Western Dryland regions.

For 14 straight years

LOOK TO DEKALB FOR NEW THINGS IN CORN AND CHIX!

More Farmers have planted DeKalb than any other seed corn!

DeKalb Agricultural Association, Inc., DeKalb, Illinois
Commercial Producers & Distributors of DeKalb Seed Corn & DeKalb Chix

For more information from advertisers circle page numbers on ad index, page 56